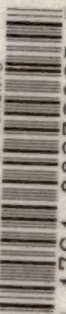


UNIVERSITY OF TORONTO



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THE GREEK AND ROMAN ORDERS

J. M. MAUCH

ARCHITECTURAL REPRINT EDITION

WITH DESCRIPTION OF EACH PLATE
TRANSLATED INTO ENGLISH

BY

E. R. A. LITZAU

EDITED BY

W. B. OLMSTED

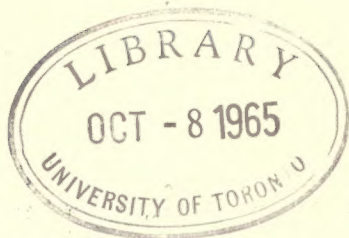
1910

WASHINGTON, D. C.
THE REPRINT CO., INC.

VOLUME X



PLATE 25



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IN the preparation of the text herein, care has been taken to verify from other sources, as much as possible as is consistent with a translation, the historical and other facts. The later edition of "Mauch" has also been used to supplement the 1845 Edition. In several instances the text of either did not agree with the plates in certain descriptions. These errors, of a perfectly obvious nature, have been corrected. The dimensions given are, on some plates, in English feet while on others they are in Paris feet, owing to the fact that Mauch, in the preparation of his book, used plates from both English and French works. The lengths of the English and French foot are so nearly equal, however, that we have not in all cases indicated in the text which was used, as for all practical purposes either is sufficiently accurate. Where possible, however, we have given the dimensions in meters.

WASHINGTON, D. C., 1910.

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ARCHITECTURAL REPRINT, 1910.

Neue systematische Darstellung
der
Architektonischen Ordnungen
der
Griechen, Römer und Neuern Baumeister.

Dritte Auflage

von
J. M. Nauck,

Architekt und Professor zu Stuttgart, ordentlichem Mitgliede der Akademie der Künste zu Berlin, des archäologischen Instituts
zu Rom u. s. w.

Mit Einhundert Kupfertafeln.

Potsdam, 1845.

Verlag von Ferdinand Neigel.

PLATE 1.

This plate is composed of a combination of various architectural ornaments, the arrangement of which can be more clearly understood by referring to the small scale plan given at the bottom of the plate. Thus, in the center we find a Roman Altar, on the plinths of which are indicated the emblems of architecture, painting, and sculpture. In the upper arch from out of rich volute-ornamentation and recognizable by the helmet and Aegies arises the bust of the art-protecting Goddess, Minerva. Under this, sitting on a festoon of fruit, is an owl, as an attribute to Minerva. The caryatides, border, friezes and the ornamentation will be referred to at a later time. The wreaths in the corners encircle the names of the most noted architects of ancient times.

FRONTISPICE.

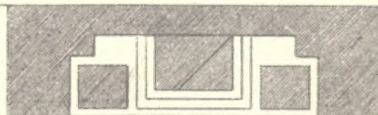
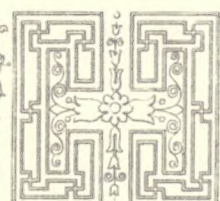
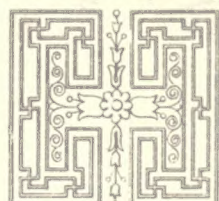
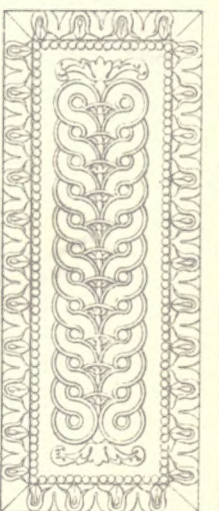
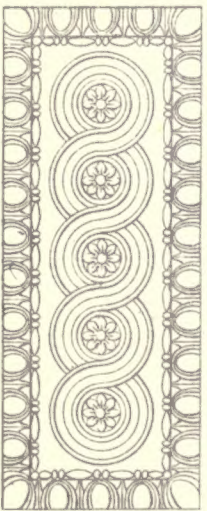
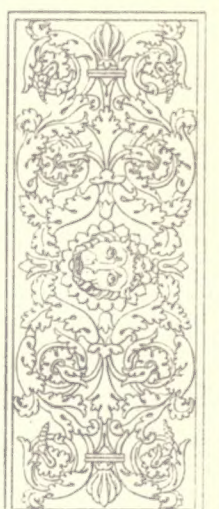
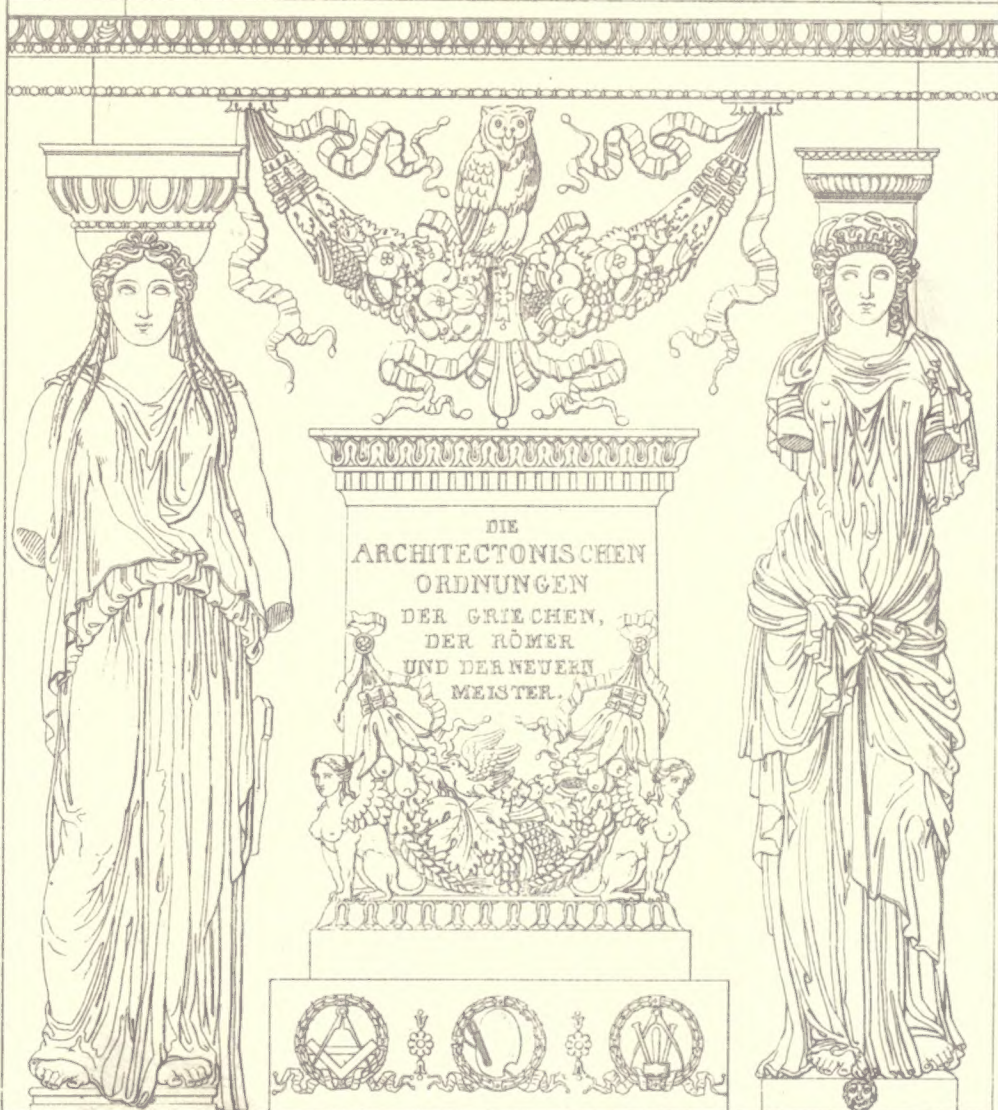
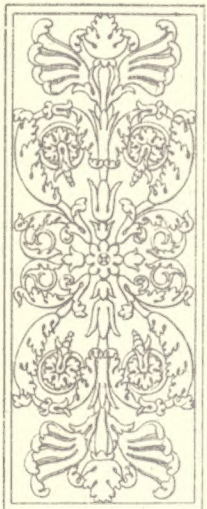
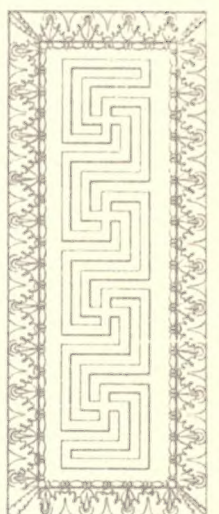
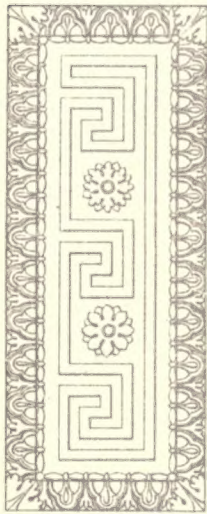


PLATE 2.

A COMPARISON OF THE SEVERAL ANTIQUE ORDERS.

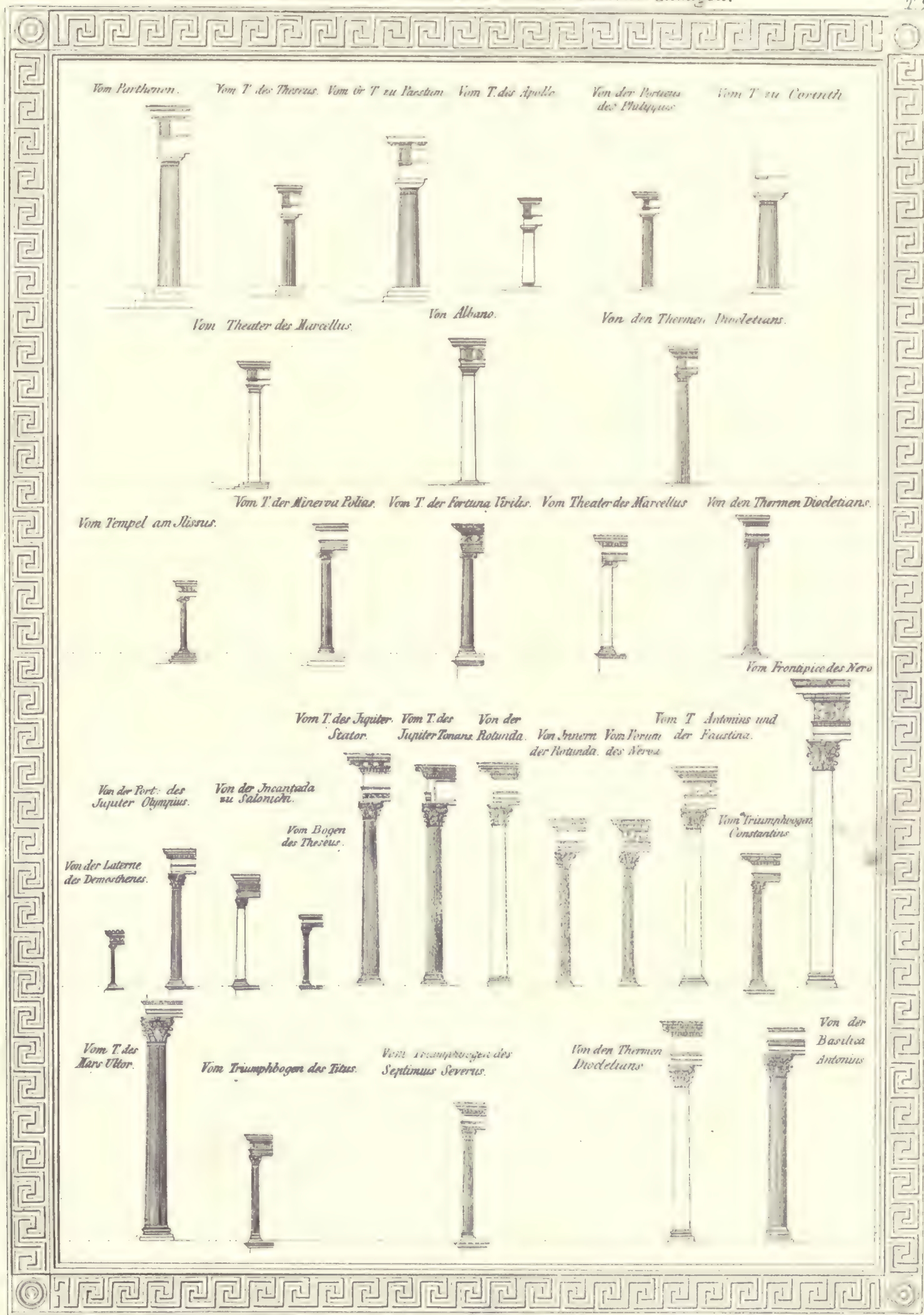
By this combination the reader is given an idea of the extent of the main subject of our consideration. On this plate will be found the orders of the most exquisite monuments still in existence, drawn to a uniform scale. The two scales at the lower margin (in Paris feet and in metres) will serve to ascertain the measurements.

In the first row we find Grecian Doric, and in the second, three of the Roman Doric orders. The third row shows two Grecian and three Roman examples of the Ionic Order. The Corinthian order is shown in the remaining lines, the smallest one belonging to the Grecian art and the remainder to the Roman. The three middle examples in the last row are as a rule credited to a variation of the Corinthian style.

Besides the schedule at the bottom of the plate we add a few additional examples in Paris feet:

Column from the monument of Emperor Alexander at St. Petersburg—diameter 11'-0"; height 88'-0"; pedestal 24'-0".

Column from the Brandenburg Gate at Berlin—diameter 5'-6"; height 41'-2"; entablature 9'-5".



Säule	Durchmesser	Höhe	Postament	Abmessungen anderer Säulenordnungen	Säulen vom Portal der Peterskirche zu Rom	Höhe	Gebalk
Säule des Pompejus	8' 3"	63' 1"	3'		Säulen vom Portal der Peterskirche zu Rom	8' 3"	11' 6"
Säule des Trojan	11' 7"	92' 6"	13' 4"		Säulen vom Petersplatz	4' 1"	35' 9"
Säule des Antonin	11'	91'	25'		Säulen vom Portal des Louvre	3' 5"	33' 9"
Säulen vom Portal der St. Genovefa	5' 6"	58' 3"			Säulen im Innern des Louvre	5' 6"	37' 8"

PLATE 3.

DORIC ORDER.

The proportions of the columns considered as a mass are the chief characteristics of the architectural orders.

The gradual change in the proportion of the orders is in keeping, primarily with the continued development and refinement which we find in all branches of art, and with the strength of the materials used. The heights of the most ancient columns are little more than four times their lower diameters, the most beautiful from five and one-half to six and one-half and the Roman examples from seven and one-half to eight diameters.

An exception to this is found in the monuments of Sicily. The columns there are generally four and one-half to five diameters in height, strongly tapered and closely spaced. The great fear of earthquakes in all probability contributed to the adoption of the ancient substantial forms.

The experiences with the strength of the materials were naturally very influential. We find, for this reason, the architraves of the majority of monuments very deep (about $3/4$ of a diameter in height) and at the same time so short that it was possible to place only one triglyph in the centre and only one-half at each end. And in this way the triglyphic intercolumnation was brought about. Because a triglyph is generally placed at the beginning of the frieze and it not being desirable to make the following metopes wider than the remainder, the corner or end column was, of necessity, placed somewhat nearer its neighbor, than the rest.

After the age of Pericles the Doric Column rose in height and at the same time the architrave became lower, whereby the whole order gradually lost its substantial character.

On plate 3 are the most exquisite of the orders, taken from five Grecian monuments, and represented at the same module scale and also in chronological order, so that the gradual change in their proportions is brought out. The actual measurements are also given and it will be seen that the larger the order the finer the different parts were made, which was usually the rule among the old masters.

1. The order taken from the Temple of CERES at Pæstum is here used only as an example to show the heavy proportion of the ancient times, and that the relations of the following styles may be all the more prominent. For the details of this order see plate 5.

2. The elevation of the order from the eave side of the Propylæa in Eleusis is not taken merely as an example of beautiful proportions, but also to show the logical and consistent arrangement of the antæ in relation to the architrave and the triglyphic division. Because the walls, which carry the same entablature as the columns, were thinner than the width of the architrave, it became necessary, where the architrave continued out over the corbel of the wall and onto the column, to give the antæ the same width as that of the architrave so that a secure and substantial bearing was provided for it, and besides the wall was thereby given the appearance of stability.

Internally the antæ was given the same width as externally. This is the case in the small halls of both Propylæa in Athens and in Eleusis. Nevertheless where, for instance in the larger hall (pl. 12, fig. 8), the internal side of the antæ corresponds with a column to which it is connected by a beam, it was given a greater width.

3. The Temple of Diana Propylæa at Eleusis shows us an antæ with equal faces (see plan fig. 5, pl. 13), an arrangement which was probably necessary on the vestibule of the Temple at Rhamnus, so that the beams of the architrave which lie free on both sides could have a substantial bearing.

The antæ of the Temple of Diana seems to be very heavy and in inharmonious relation with the corner triglyph and the height of the architrave, which rests upon the outward wall. It is possible that instances can arise where it is necessary to use a very broad antæ, as in the case of the Erechtheum at Athens (see plan, pl. 30). The artistic taste of the builders in this case knew how to use the broad face of the antæ so that it would be in excellent scale with the superb architecture of the rest of the monument.

4. The fourth example is the order from the Temple of Jupiter at Nemea, the details of which are given on plate 14. The remains show us the most elegant relations of all Doric monuments which were produced at the time when Grecian art was at its height.

5. The last example on our plate is the Monument of Thrasyllus in Athens, and was selected because it offers an interesting illustration of pilaster architecture. Later, on plate 17, we will refer to this monument, but here we desire only to call attention to the lack of a pilaster base, which, when we consider the second and third examples, we are reluctant to miss.

DORISCHE ORDNUNG.

ORDRE DORIQUE.

T. 3.

Vom Tempel der Ceres
in Paestum.

Von den Propyläen
zu Eleusis.

Vom Tempel der Diana. Propyläa
zu Eleusis.

V.T.d. Jupiter
zu Nemea

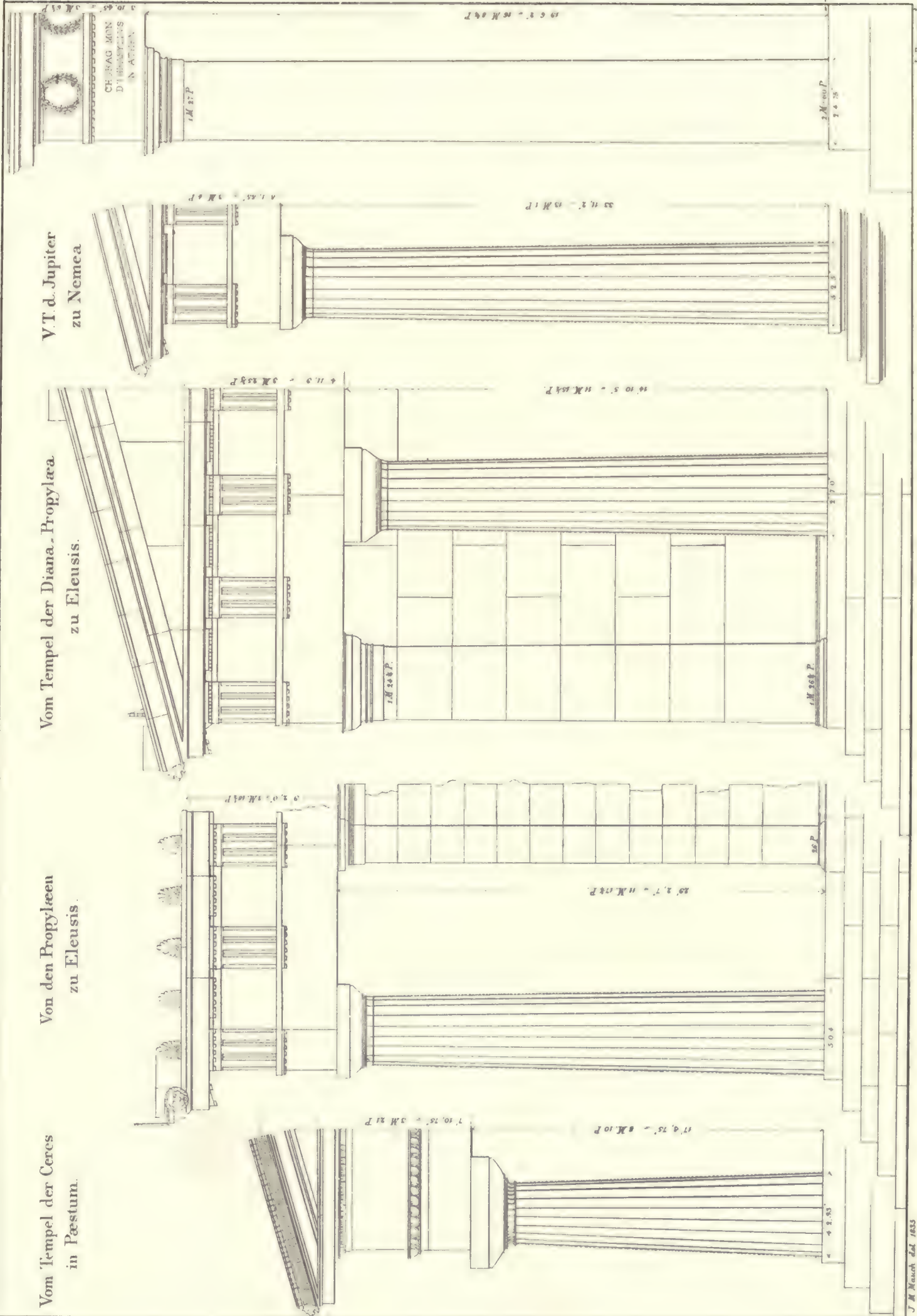


PLATE 4.

THE GREAT TEMPLE AT PÆSTUM.

The interior of the city of Pæstum consists of many ruins, out of which three examples stand forth prominently, which are now called the Temple of Neptune, Ceres and the Basilica. These temples were probably erected during the period that the city was in the hands of the Sybaritans about 510 to 340 B. C. The material used consisting of a limestone similar to Travertino was taken from the near-by hills of Alburnus, and was used in immense structures without the use of mortar. The rough surface of the stone was covered with stucco and this painted. Traces of yellow, red and black paint can still be distinguished. In the middle of the eighteenth century the ruins were again brought to notice and knowledge of them further spread through the work of Delagardette. The drawings of his book are used in the preparation of ours, some parts which were incorrectly shown are here properly represented.

On this plate we will consider the order of the so-called Temple of Neptune or great Temple. We give this the first place because it is quite correct to number it among the products of the earliest, pure Doric periods. Probably the Temple was built in the early part of the fifth century B. C. It has six columns across the front and twelve deep, all of which rise from a base of three plinths. The cella is divided into three spaces by two rows of seven columns each.

The corner columns we find are $1/80$ more in diameter than the middle ones and all are much tapered and with little entasis. The capitals seem to be somewhat compressed, but this form is in keeping with the strongly diminished column.

We see similar relations of membership in the columns of the ancient Temple at Corinth (620 B. C.). The grooves at the neck are incorrectly given on our plate, as taken from Delagardette, and for that reason we have supplied a correction under B. The main cornice expresses the same heavy character as does the column. The corona is heavy, the mutules thin and the guttae are strikingly large. The accompanying section is taken at a point between two mutules. Over the tympanum, the cornice shown in section A continues from each end to the point above. The bed moulding is especially worthy of notice, apparently being profiled with regard to the reflex light. Over the cornice of the tympanum, undoubtedly, was originally a cyma, which is found on nearly all of the ancient Temples, although in this case there remains not a trace of one. The capitals of the antæ were also designed to express the same earnest character and solidity as the other architecture of the building. The porticos have an insignificant depth, similar to that of the Temple at Rhamnus (Plate 10). A triglyphic entablature is carried around the entire cella, and its lower edge lies somewhat higher than that of the entablature of the pteroma, as the cella was considered as an independent structure inside of the pteroma, and for that reason arose from a separate foundation. Such a difference in height can also be noticed in the Temple at Corinth and later at the Parthenon and also on the Temple at Phigalia.

The architecture of the Temple of Pæstum is very important for the study and development of forms, but same should seldom be used and then only in well qualified cases in our present day requirements.

BASIS, CAPITAL UND GEBÄLK DORISCHER ORDNUNG vom grossen Tempel zu Paestum.

T 4

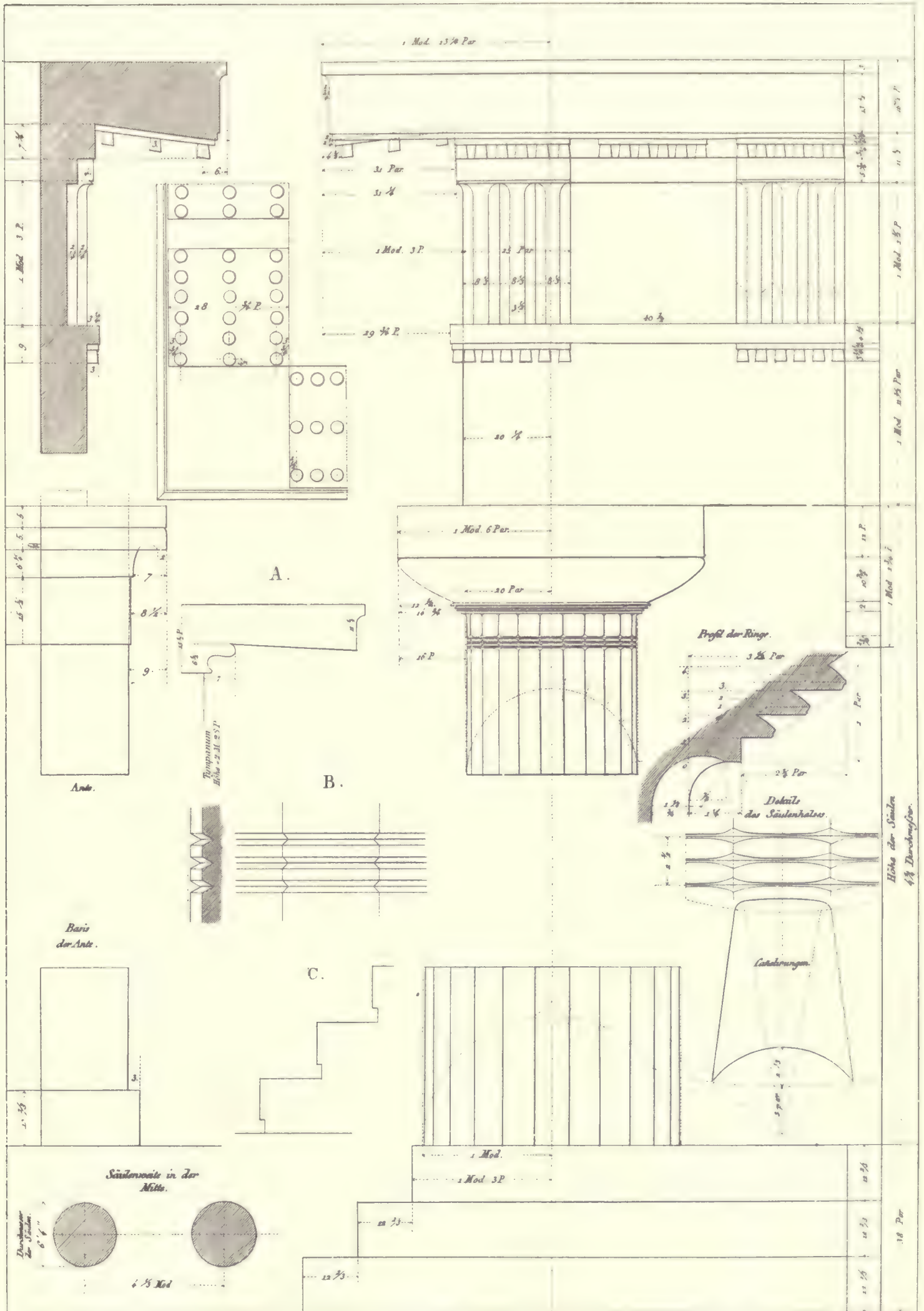


PLATE 5.

THE TEMPLE OF CERES AT PÆSTUM.

This very interesting Temple belongs to the Peripteral style, with 6 and 13 columns. The columns show a like relation to those of the great Temple and are yet more closely spaced (see Fig. 8).

The style here departs in detail from that of the Neptune Temple and also from the Doric order. The entablature in figure 1 shows no triglyph, mutules, or Doric architrave-crowning, but has an inclination towards the Ionic. The triglyphs set in as tablets are a later addition, and therefore are omitted from our plate. The cymatium of the architrave was found by Delagardette in a totally ruined state, but it has since been possible by careful examination in 1830 to restore it as shown on our plate. Besides traces of red color in the deepest places, nothing of the detail remains. The illustration at A is that of a similar architrave-crowning of the Basilica, and at B that of the Temple at Cadachio.

The friezes of the last two are also without triglyphs.

Unfortunately, the cornices of the last two examples are missing. On the Temple shown we still have the corona; it is shown in elevation on the pediment end in figure 1, and in section under and over the tympanum in figure 2, and in plan in figure 3. The panels in the soffit, although unique, still give, by the uncommon ornamental effect, a delicate character. The pediment cornice has a like soffit. Crowning the pediment cornice was probably a cyma such as was described on plate 3. The profile of the inside of the architrave and frieze is shown by a dotted line.

Just as exclusive as is the entablature, so also is the capital of the column, with a widely projecting echinus, which together with the greatly sunken leafwork under, forms a strong necking. Under figure 6 is shown to a large scale a section of this part and in connection with it an elevation and plan showing the ornamentation. Figure 4 illustrates a quarter plan of the capital. The projection of the capital is in perfect harmony with the projection of the corona and with the greatly diminishing and little entasized column, which is shown in plan at figure 5. The columns, in plan (fig. 8), are equally spaced, owing to the fact that the triglyphic divisions, not being used, did not require a closer spacing of the end columns. The columns of the Basilica are also equally spaced; their capitals, shown on plate 16, have a similar neck mould and a prominently projecting and extraordinary swelling echinus (as also on the ancient examples from Corinth), and their shafts a very strong entasis.

In consideration of the above-mentioned individualities, the order of the small Temple, and also that of the Basilica, is not to be considered as a member of the Doric style; neither can we place it among the long lost Tuscan order, but we can recognize in it the influence of the Estrurian sculpture and are much inclined, considering the formation of the capital and especially the corona, to consider it as a reminiscence of a wood building. That Estrurian forms were used in Pæstum is positively proven by the fact that two capitals, plate 16, were found there with the finely carved bands under the very flat echinus.

There was apparently no great lapse of time between the erection of the small Temple and that of the Basilica, but neither one was erected after the city was conquered by the Romans.

DORISCHE ORDNUNG,
vom Tempel der Ceres in Pestum.

ORDRE DORIQUE,
du Temple de Cères à Pestum.

T. 5.

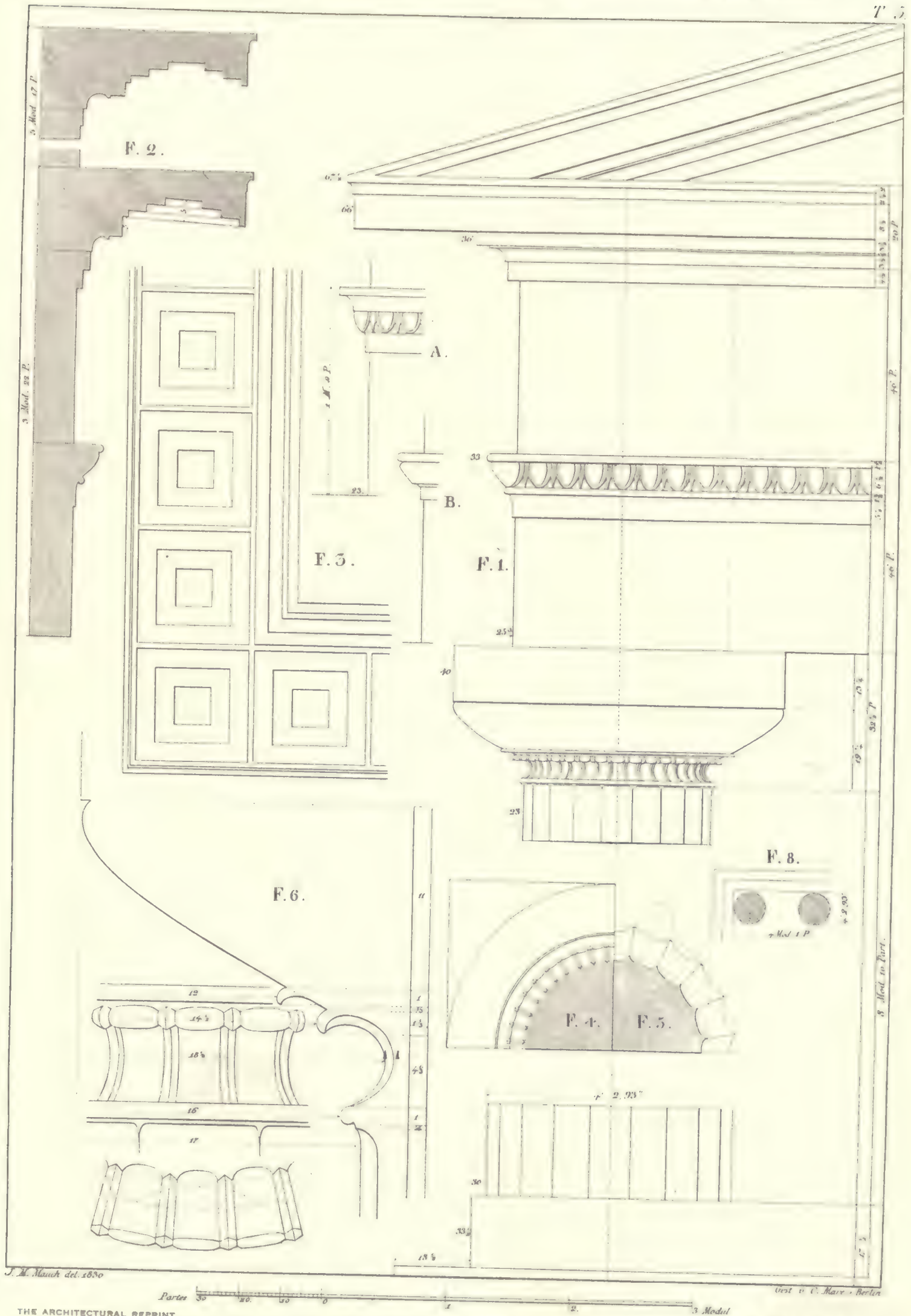


PLATE 6.

THE TEMPLE ON THE ISLAND OF ÆGINA.

In the whole appearance of the Temple on the island of Ægina, we first discover the vivacious freshness and energy indicated. It was, in all probability, built after the victory over the Persians and dedicated to Athene. It is of the Peripteral Hypæthral class, with 6 columns under each pediment and 12 on each side, including the end ones. The cella or interior space was divided into three parts by two rows of 5 columns each, the central portion of which was without a roof, as was also the case in the great Temple at Pæstum and others.

Besides this arrangement of the cella, the plan is somewhat similar to that of the Temple of Nemesis, plate 9, although both porticos of the Temple of Ægina have a comparatively narrow depth, as does also the opisthodomus of the Temple of Nemesis. The shafts of the columns of the pteroma are not perpendicular but are inclined about 1-30 of the diameter towards the cella.

The shafts of the columns have a swelling or entasis equal to $1/80$ of the lower diameter. The beautiful proportions of the columns and also the expression of solidity in the capitals, give us an idea of the high state of development of the Doric order, even at so early a date. This is not the case in the same degree, in the Temple at Pæstum, and still less, in the older Temple at Corinth, where the columns are very heavy and the profiles of the capitals project quite prominently, while the capital, in our example, is one which, from the channels out, show a pleasing outline.

The bands or sinkages under the echinus are here, for the first time, shown in that delicate development as is found mostly on the monuments of the Pericleian age, whereby, as an individual fineness, the addition of the neck mould is noticed. A steeply drawn projection at the upper part of the shaft leads to the arrangement of the bands as is shown on the detail drawing of our plate. The neck mould or sinkages, of which there are three in number, remind us of the ancient forms at Corinth and Pæstum, while other later examples, in nearly all instances, show only one sinkage. The main cornice of the Temple on Ægina has a greater height than many of the later monuments; considering its construction and membership it indicates the same beautiful development. The cyma over the pediment cornice is of very beautiful profile, and is enriched with that ornamentation which the Greeks called Anthemion. The ornament shown was probably repeated on the lower half in an inverted position. The elevation of this cyma is shown beside the section to a larger scale. The arrangement of the pediment end was similar to that of the Propylæa at Eleusis, which is shown on plate 12. On the triangular shaped pieces over the cornice, at one time, were winged griffins which are shown according to our conception as indicated by the discovered fragments. Of the akroter on the pediment apex more remains; between two female figures, of ancient style, carrying pomegranate blossoms in one hand, was a lyre like ornament, which was held by a lion headed griffin behind same. This composition, as well as the figures at the ends and the cyma, were of marble and partly colored.

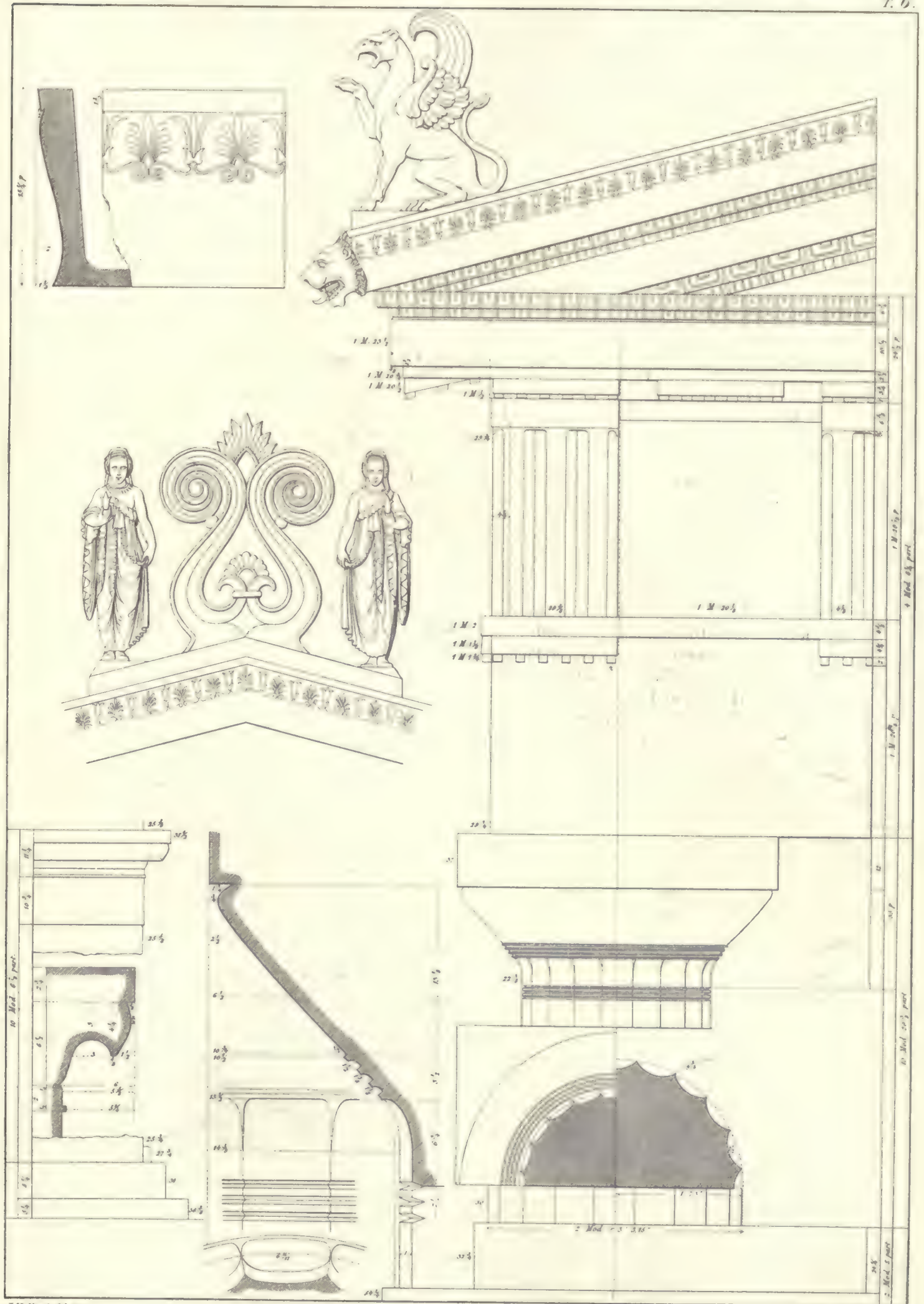
The remaining parts of the Temple, such as columns, cornices and walls were of a yellowish sandstone and covered on the surfaces with a white stucco which was painted. On the architrave was found traces of yellow and green foliated ornaments. The tænia had a red color; the regula was blue, as were also the triglyphs with the bands over the metopes, and the mutules. The corona with its lower members was red. Traces of applied ornament were found on the vertical surface of the corona. The cymatium over was ornamented with alternating red and blue leafwork. Similar in color, also, were the flowers on the cyma. The whole face of the tympanum was blue. The cella walls indicate a dark red color as does also the floor.

In both tympani were once placed marble statues, the remains of which are now preserved at Munich. On these sculptures are also traces of painting.

DORISCHE ORDNUNG,
von dem Tempel auf der Insel Aegina.

ORDRE DORIQUE,
du Temple sur l'Isle d'Egine.

T. 6.



J.M. Meisch del. 1830

Grasmacher sc.

Parten 20 10 5 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

PLATE 6a.
TEMPLE OF ZEUS AT OLYMPIA.

The Temple of Zeus, in which was placed one of the most renowned works of art of ancient times, the gold and ivory statue of the god Zeus, executed by Phidias, was probably erected 460 to 450 B. C. Plate 6a illustrates different portions; at Fig. 3 the corner of one of the long sides of the Temple, and to the left thereof at Fig. 1 the entablature of the pronaos and opisthodomos at the same scale. The strong membering and excellent proportions of mass, make this temple one of the finest of all of the remaining Doric monuments. Although originated in the middle of the fifth century B. C., and only about 10 to 20 years earlier than the Parthenon, the architecture of the Temple of Zeus is nearer the older style of architecture than the more slender relations and finer members of the Athenian monuments.

Of particularly fine formation is the capital, with the elastic curve of the echinus; it is about a medium between the capital of the Temple of Ægina with its strikingly high echinus and that of the so-called Temple of Theseus at Athens. The entablature and height of columns give occasion for further comparison. The entablature practically agrees with that of the Temple of Ægina, being almost $\frac{2}{5}$ the height of the column, while on the Parthenon it is about $2:6\frac{1}{4}$ and at the Temple of Nemea about $2:8\frac{1}{4}$. The column height is about $4\frac{1}{2}$ diameters, while at the Temple of Theseus and the Parthenon it is $5\frac{1}{2}$ diameters.

The material used was a rough native conglomerate, the rough surface of which meanwhile adapted itself admirably for coating. Marble was used only for the carvings, the gable figures and the metopes. The metopes though are comparatively thin slabs of marble which are held in place in grooves in the sides of the triglyphs. The covering of the Temple roof also consisted of marble in the form of flat tiles.

The cyma has a vertical surface at its lower half, the upper half being moulded. Some of the ornamentation was only painted—white on a blue background—and could be restored almost correctly from the remaining portions.

Remains of decoration which answered for a restoration on our plate were also found on the cymatium. This ornament was the well-known doric leaf-wave. This cymatium is found on the long side and on both slopes of the pediment, but not on the corona forming the base for the pediment. Fig. 2 shows the soffit view with the mutules and the profile of the triglyphs; Fig. 7, the plan of the capitals and outer columns; Figs. 5 and 6, the profile of the antæ and columns of the pronaos at a larger scale.

Ordre dorique
du Temple de Jupiter à Olympie

This block contains a series of architectural drawings of the Temple of Isis at Philae. The drawings are labeled F. 1 through F. 9. F. 1 is a side elevation of a column. F. 2 is a detail of a column capital. F. 3 is a plan view of a column. F. 4 is a side elevation of a column. F. 5 is a detail of a column capital. F. 6 is a detail of a column capital. F. 7 is a detail of a column capital. F. 8 is a detail of a column capital. F. 9 is a detail of a column capital. The drawings are accompanied by a scale bar at the bottom, indicating measurements in meters and centimeters. The scale bar is labeled 'Meter' and 'cm'. The drawings are also accompanied by a list of measurements on the right side, including '1M 19P', '1M 18P', '1M 17P', '1M 16P', '1M 15P', '1M 14P', '1M 13P', '1M 12P', '1M 11P', '1M 10P', '1M 9P', '1M 8P', '1M 7P', '1M 6P', '1M 5P', '1M 4P', '1M 3P', '1M 2P', '1M 1P', '1M 0P', '1M -1P', '1M -2P', '1M -3P', '1M -4P', '1M -5P', '1M -6P', '1M -7P', '1M -8P', '1M -9P', '1M -10P', '1M -11P', '1M -12P', '1M -13P', '1M -14P', '1M -15P', '1M -16P', '1M -17P', '1M -18P', '1M -19P', '1M -20P', '1M -21P', '1M -22P', '1M -23P', '1M -24P', '1M -25P', '1M -26P', '1M -27P', '1M -28P', '1M -29P', '1M -30P', '1M -31P', '1M -32P', '1M -33P', '1M -34P', '1M -35P', '1M -36P', '1M -37P', '1M -38P', '1M -39P', '1M -40P', '1M -41P', '1M -42P', '1M -43P', '1M -44P', '1M -45P', '1M -46P', '1M -47P', '1M -48P', '1M -49P', '1M -50P', '1M -51P', '1M -52P', '1M -53P', '1M -54P', '1M -55P', '1M -56P', '1M -57P', '1M -58P', '1M -59P', '1M -60P', '1M -61P', '1M -62P', '1M -63P', '1M -64P', '1M -65P', '1M -66P', '1M 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PLATE 7.

FROM THE TEMPLE OF THESEUS AT ATHENS.

The Theseus Temple* is a six-columned Peripteral with thirteen columns on the long side. It is built of Pentelic marble, and is one of the best preserved, even parts of the marble roof remaining in place. We see in this Temple the richest expression of the Doric style as it was developed in Athens and Attica. It has very harmonious proportions, although the architect in striving therefor has sacrificed in certain instances the Doric forms.

The columns are placed on a base of two marble plinths and a sub-base of limestone. They are $5\frac{1}{2}$ diameters in height, and spaced a little more than $1\frac{1}{2}$ diameters apart. The taper is less than $\frac{1}{4}$ of a diameter, and therefore the entasis is slight.

The profile of the echinus became from now on higher and stiffer, and the spread of the capital less, the extreme width on this example being a little under 1 1-6 lower diameters. The base of the antæ appears crude in comparison with the weak capital.

The height of the entablature without the cyma is 2 diameters. The cyma is not preserved, our plate showing a restoration. The metope reliefs represent the deeds of Theseus and Hercules. One of the tympani was decorated with sculpture, of which nothing remains.

The preservation of this Temple can presumably be attributed to the fact that it was used by the later Grecians as a church of Saint George, though at present it serves as a museum for ancient art.

*It is now ascertained to be a Temple of Hephæstus (Vulcan).—Sturgis' Dictionary of Architecture.

T 7

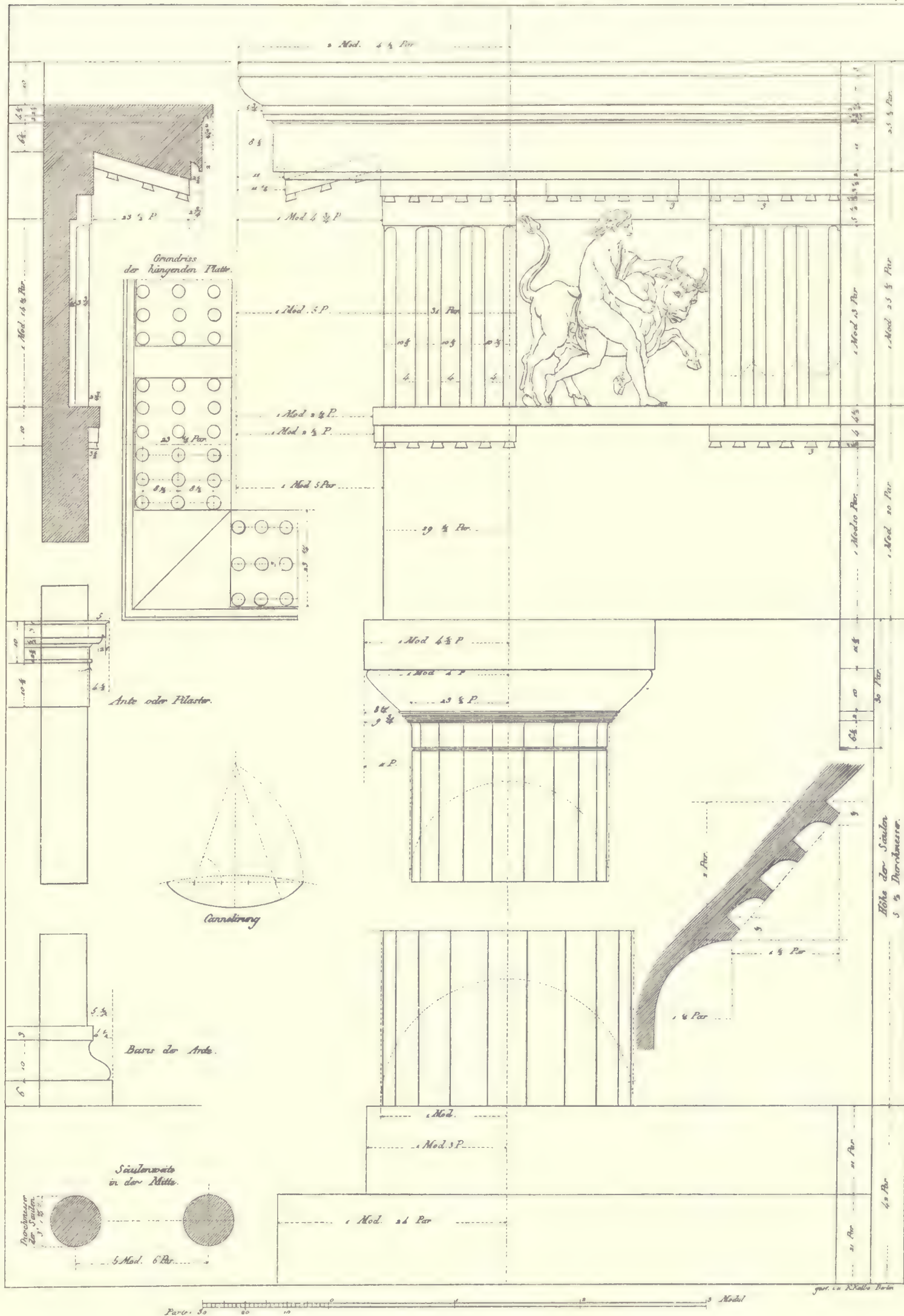


PLATE 8.

FROM THE PARTHENON AT ATHENS.

The Parthenon, dedicated to Athena Parthenos, and representing the height of art of the age of Pericles, was built between 447 and 434 B. C. on the site of an older Temple begun by Cimon, but remaining unfinished. Ictinus and Callicrates were the architects, and the incomparable decorations were under the direction of Phidias.

The Parthenon is 101.33 x 228.141 English ft., built of Pentelic marble, and belongs to the style of the Peripteral Hypæthral Temple, with 8 columns on the front and 17 on the side. These columns (34 feet 2.8 inches high) arise from a base of three plinths, and on the latter are two plinths again, from which arises the cella. The cella itself has the form of an Amphiprostyle, forehalls (pronaos and epinaos) of six columns each, being placed at the entrance at the east and west ends. The entrance on the east leads to the long naos, which has a row of superimposed columns on each side, thereby forming narrow side aisles, with galleries over. These side aisles were carried across the rear, and thus encircled the gold and ivory statue of Athena Parthenos, the masterpiece of Phidias. Behind the cella we find an almost square room which has its entrance from the west.

The frieze 525 feet long and 3 feet 4 inches high (English), encircling the wall of the cella, was decorated with reliefs by Phidias. The 92 metopes of the triglyphic frieze were also decorated with sculpture, and in contrast to the flat cella frieze were in strong relief.

The principal decorations were in the two tympani, consisting of colossal sculptures, that at the east representing, according to Pausanias, the birth of Athena, and that at the west the contest of this goddess with Poseidon.

Our plate shows a corner of the long side.

The columns are of similar proportion as those of the Theseus Temple, only the capitals have a still less projection. Five cinctures or rings shown at A connect the echinus with the hypotrachelium or necking. The column capitals of the Amphiprostyle show only three rings as shown at B. The outer columns lean inward so that if their axes were prolonged they would meet over a mile above. The corner columns, which are about 1-36 of a diameter thicker than the middle ones, lean toward the diagonal of the building, and more than the others, and through this inward inclination was gained stability. Still more striking is the fact that the long horizontal lines form curves crowning upward, these refinements being for none other than æsthetic reasons.

The entablature of the Parthenon, in relation to the column height, seems a little lighter than on the Theseus Temple. The tænia was painted with a meander, the scheme of which is still apparent in the less exposed places, the color itself not being any more recognizable. Noteworthy is the string of pearl beading above the capitals of the triglyphs. We can recognize in this the Ionic influence on the Doric forms. The cyma was decorated with a flower wreath, traces of which are still discernible, but not the color. On the corner of the long side the cyma ends with a lion's head, which is turned a little towards the corner. The profile of the pediment cornice is shown at D.

The antæ capital at C can be called Doric, with an Ionic feeling.

In Byzantine times the Parthenon was changed into a Christian church to the Virgin Mary. In the Turkish times it answered as a mosque. At the siege of Athens by the Venetians in 1687 the Turks placed a powder magazine in the building, assuming that from the sacred character of the place the powder would be safe. It was exploded by a bomb of the besiegers. This was mainly the cause for the ruined condition of the building, although in later times the despoilation was still further accomplished by the Englishman, Lord Elgin, who removed the sculptures and transferred them to London, where at the present time they are the most highly prized treasures of the British Museum. Even earlier than this a small portion of the sculptures, today preserved in the Louvre, was removed by the Count Choiseul Gouffier.

BASIS, CAPITÄL UND GEBÄULIK DORISCHER ORDNUNG, von der äussern Halle des Tempels der Minerva oder des Parthenon zu Athen.

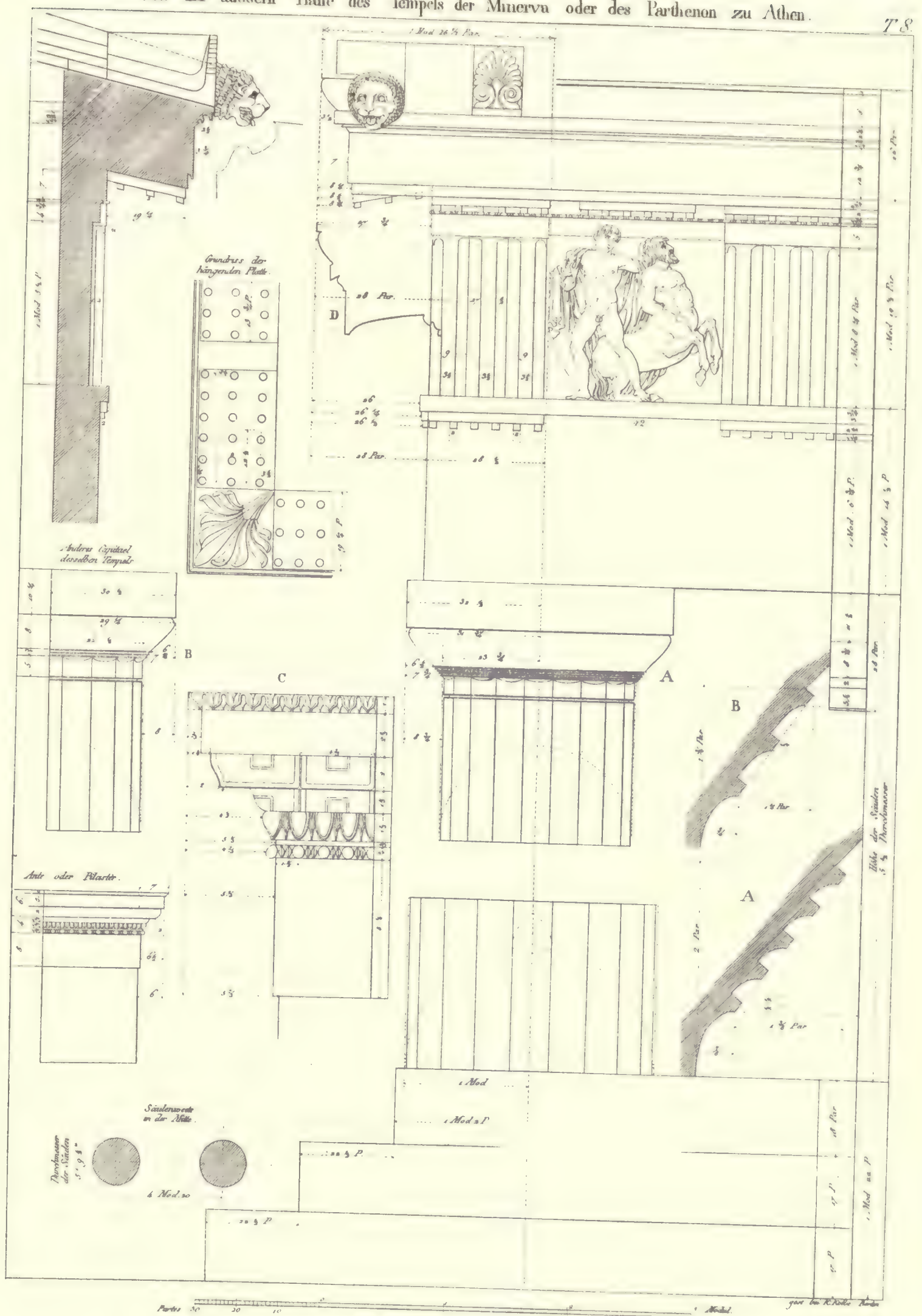


PLATE 9.

THE TEMPLE OF NEMESIS AT RHAMNUS.

The Temple of Nemesis was located on a hill on the east coast of Attica, and is today in a state of ruin. It was first explored by the Society of Dilettanti (London, 1817), and portions of all parts were found whereby the entire building could be restored as on our plate.

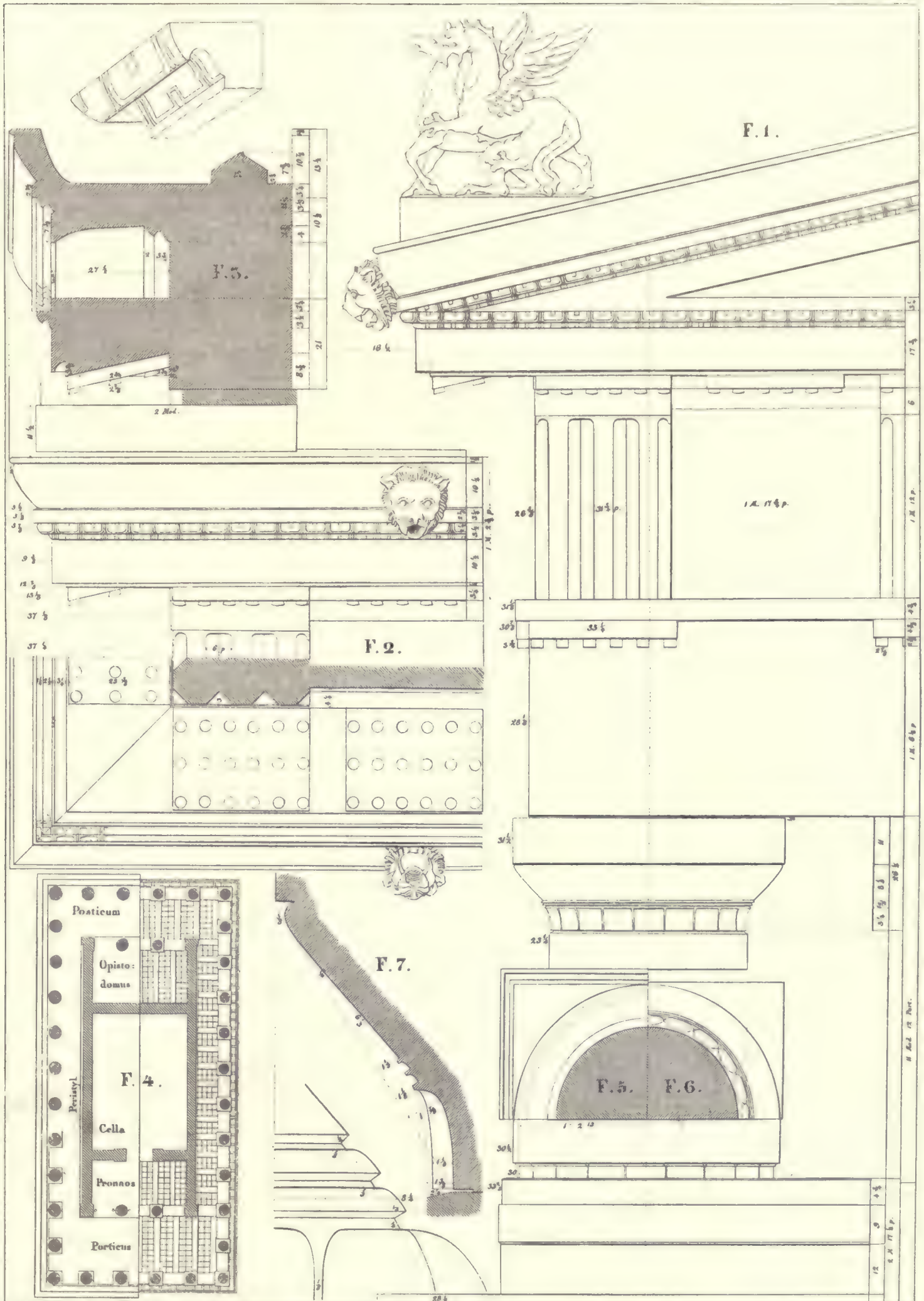
The Temple was built of marble; art forms indicate the building as being of the Periclean times. It is a six-columned Peripteral, and the smallest Temple of this kind. On the long side are 12 columns, a lesser number than on the Theseus Temple, from which otherwise it differs little. The corner pilaster of the pronaos of the cella is exactly an axis of the corresponding column, and in this respect is the only instance. The columns are somewhat more slender than former examples, being 1-5 diameter higher than $5\frac{1}{2}$ diameters. They stood in sinkages, a proof that the lower work was not yet cut away; also in the same way the channels of the column shafts were not yet finished. Each shaft consisted of 5 drums, and the antæ and wall of 8 courses, of which the lowest was about twice the height of the others, a rule which we see followed in most antique structures. Fig. 7 shows the echinus of the capital, and under it the cinctures or rings at the necking are shown at actual size, the execution of this extreme fineness being possible only in a fine grained marble. The leaf-wave cymatium of the corona shows signs of former decoration; this is shown at a larger scale above Fig. 5. Noteworthy, over the leaf-wave, the corona reappears in the same plane as below. The sloping corona of the pediment is less in height than the horizontal. The cyma is similar to that of the Parthenon, only on its upper edge a bead is shown. As a corner acroter we see a griffin ornament, which has been restored from discovered remains.

Fig. 4 shows a plan of the Temple. Inside of the encircling peristyle we see a peculiar Temple in antis, with a rear hall (opisthodomē) on the west. The columns of both pronaos and opisthodomē have eleven channels on the front side, the back side remaining smooth. On the floor of the pronaos we find between the columns round sinkages which presumably were for the fastening of iron gates. The sides of the antæ show different widths on the two ends; those on the east (at the pronaos) have twice the width of those on the west, and have an architrave spanning from the wall to the third column back from the front.

DORISCHE ORDNUNG,
vom Tempel der Nemesis zu Rhamnus.

ORDRE DORIQUE,
du Temple de Nemesis à Rhamnus.

T 9.



J. M. Blanch del. 1855.

Part. 30 20 10 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 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PLATE 10.
FROM THE TEMPLE OF NEMESIS AT RHAMNUS.
Continued.

Figure 1 shows a section of the entablature. The epistyle or architrave, similar to that of the Parthenon, was constructed of two pieces of marble side by side, with their unworked surfaces towards each other, only a few inches of their lower edges being finished so that the joint was hardly visible. The repetition of the regula on the inner beams is entirely without motive. The ceiling beams rest in part on the blocks of the corona. The inner panels of the ceiling show gilded stars on a blue ground. These panels are separated by pearl beading.

Each block of the wedge shape gutter or eave stone was the width of two tiles. At the lower Fig. 5 is shown one of these stones, and the underside of a cover tile; the upper Fig. 5 shows a section of both tiles.

At Fig. 8 is shown in plan the different parts of the entablature; a, architrave blocks; b, frieze; c, corona; d, eave stones; e, roof covering; f, beams of the posticum; g, beams of the side hall or peristyle; h, stone course resting on the frieze of the cella.

On this plate, Fig. 6, is the capital of the antæ at the west end, which is very similar to that of the antæ of the Parthenon. The shaft of the antæ has a slight taper.

ORDRE DORIQUE,
du Temple de Nemesis à Rhamnus.

This architectural drawing set illustrates the Temple of Isis at Philae. The central plan shows the temple's layout, including the main hall (F.1), the staircase (F.2), the entrance (F.3), the courtyard (F.4), the colonnade (F.5), the hypocaust (F.6), the staircase (F.7), and the staircase (F.8). The plan is annotated with dimensions in feet (p.) and meters (M.).

The sections are labeled F.1 through F.8:

- F.1.** A section showing the main hall with a central column and a staircase on the right.
- F.2.** A section showing the entrance and the staircase leading up to the main hall.
- F.3.** A section showing the courtyard and the entrance to the main hall.
- F.4.** A section showing the colonnade and the entrance to the main hall.
- F.5.** A section showing the hypocaust and the entrance to the main hall.
- F.6.** A section showing the staircase leading up to the main hall.
- F.7.** A section showing the staircase leading up to the main hall.
- F.8.** A section showing the staircase leading up to the main hall.

The plan and sections are annotated with dimensions in feet (p.) and meters (M.). The plan shows a central hall (F.1) with a central column and a staircase on the right. The staircase (F.2) leads up to the main hall. The entrance (F.3) is on the left. The courtyard (F.4) is on the right. The colonnade (F.5) is on the right. The hypocaust (F.6) is on the right. The staircase (F.7) is on the right. The staircase (F.8) is on the right.

PLATE 11.

THE TEMPLE OF APOLLO EPICURIUS AT BASSÆ NEAR PHIGALIA.

This Temple dedicated to Apollo was built in the hills near Phigalia by Ictinus, the architect of the Parthenon, and, according to Pausanias, was the most beautiful of all the Temples in Peloponnes, with the exception of the Temple of Athena Alea.

The Temple of Apollo is a six-columned Peripteral, with 15 columns on the long side, arising from a base of three plinths. The peristyle encloses a Temple in antis. The interior is divided into two parts; the larger rectangular one, which probably was open at the top, shows along the sides four niches formed by projecting piers, with $\frac{3}{4}$ Ionic columns on the front of them. The smaller chamber was roofed and had an entrance at the east side. It was presumably the room which contained the god. The Ionic order of the interior of this Temple is described on Plate 37.

The stone from which the Temple was built is a bluish white limestone with brown veining, which was quarried nearby. The decorated parts are worked out of a Parian like marble.

On the exterior the greater portion of the columns, with their architraves, was in place. Of the remaining parts, sufficient remained so that the Temple has been restored completely, in drawings. The columns are 6.15 meters high, and 1.17 meters in diameter, with the exception of the corner columns, which are 1.18 meters. They have a very slight taper, and for that reason a very slight entasis.

On Plate 11, Fig. 1, is represented the pediment corner of the front. The relations and forms of the principal parts on this Temple are little different from those of the monuments of Attica of the age of Pericles, heretofore discussed, only the columns are a little slimmer, and the cyma has a considerably different form. It is the Ionic form decorated with anthemion ornament in relief.

Fig. 3 shows a profile of the same with the pediment corona. The latter is here a little less in height than the horizontal corona. The cyma ends (similar to that at the Parthenon) with the return at the corner to a lion's head which spouts out the rain water.

The eave tiles (at Fig. 4) are decorated with palmetto in relief. The roof tiles yet remaining (of Parian marble) show that the flat and cover tiles consisted of one piece and were 2 ft. $1\frac{1}{4}$ inches by 3 ft. $6\frac{1}{2}$ inches (English), being the largest known.

Fig. 5 shows the echinus, the ending of the channels of the column shaft and the two very noteworthy and delicate rings connecting the shaft with the hypotrachelium or necking.

Fig. 6 shows the antæ with the lower portion of the shaft not yet tooled.

Fig. 7 shows a portion of the Temple in plan, with the beams of the ceiling shown by dotted lines P. The architrave of the pronaos was about one foot lower than that of the peristyle, and therefore not connected thereto.

DORISCHE ORDNUNG,
vom Tempel des Apollo Epicurius bei Phigalia.

ORDRE DORIQUE,
du Temple d'Apollon Epicurée pres de Phigalia.

7. 11.

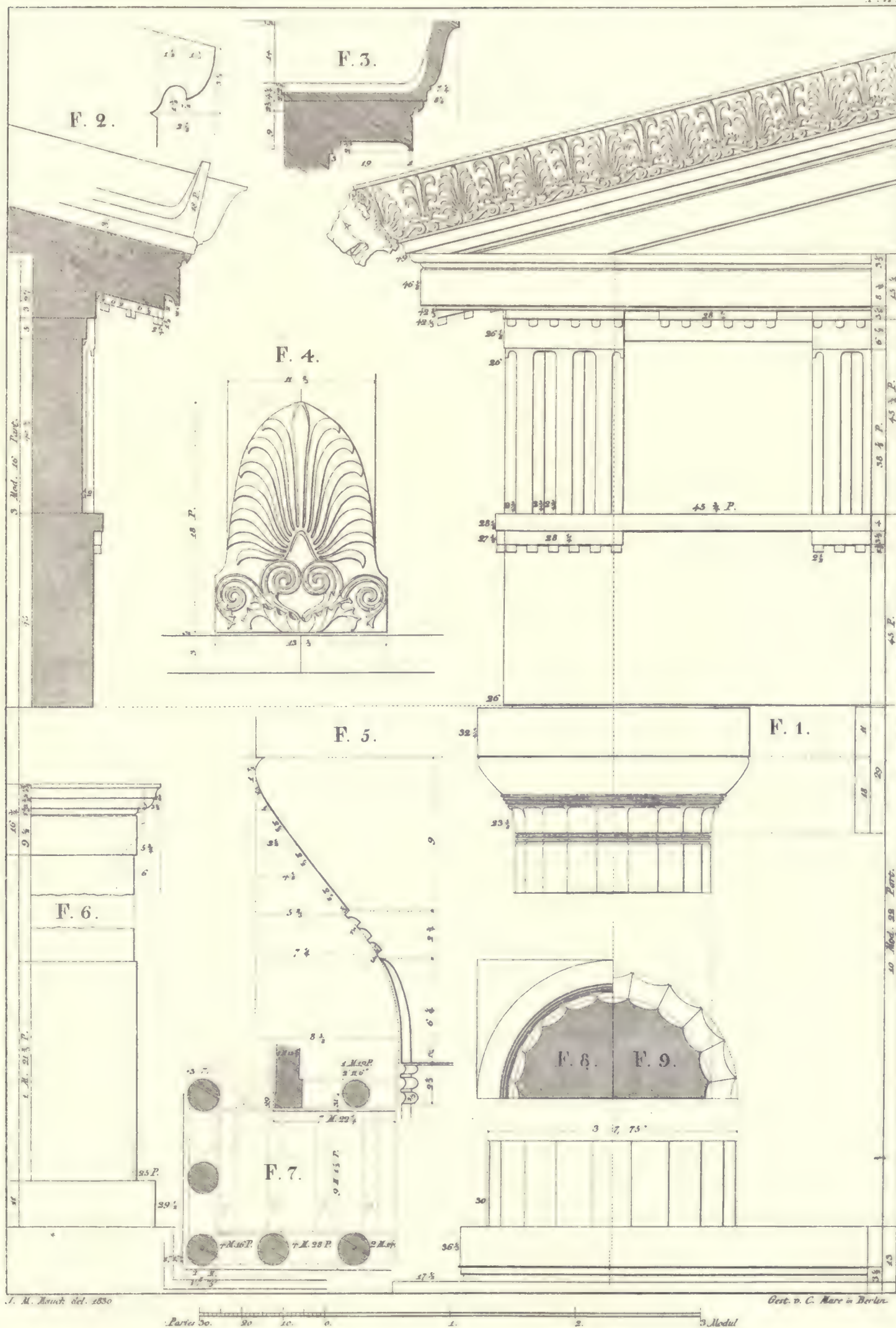


PLATE 12.

FROM THE PROPYLÆ OF THE DEMETER TEMPLE AT ELEUSIS.

This Propylæ was built after the example of that at the Acropolis of Athens (except the lower wings were not repeated), and was of the same size and also of Pentelic marble. Cicero speaks of the Temple at Eleusis as being under construction in his time.

This Propylæ had the outer form of a six-columned Amphiprostyle. The inner space was divided into two chambers of different depths by a curtain wall in which were found five doors of different sizes. The outer room was the larger, and its roof was carried by two rows of six Ionic columns. The floor of both rooms was on the same level. At the Athenæan Propylæ this was not the case, and the ceilings and roof were also at different levels. At Eleusis both chambers were of one height and under one roof.

On Plate 3 a corner of this Propylæ is represented.

On Plate 12, Fig. 8, is shown a part of the plan of the outer hall. The entire width of the building measured, on the upper step of the base, 21.41 meters, and the depth at the same place 24.26 meters.

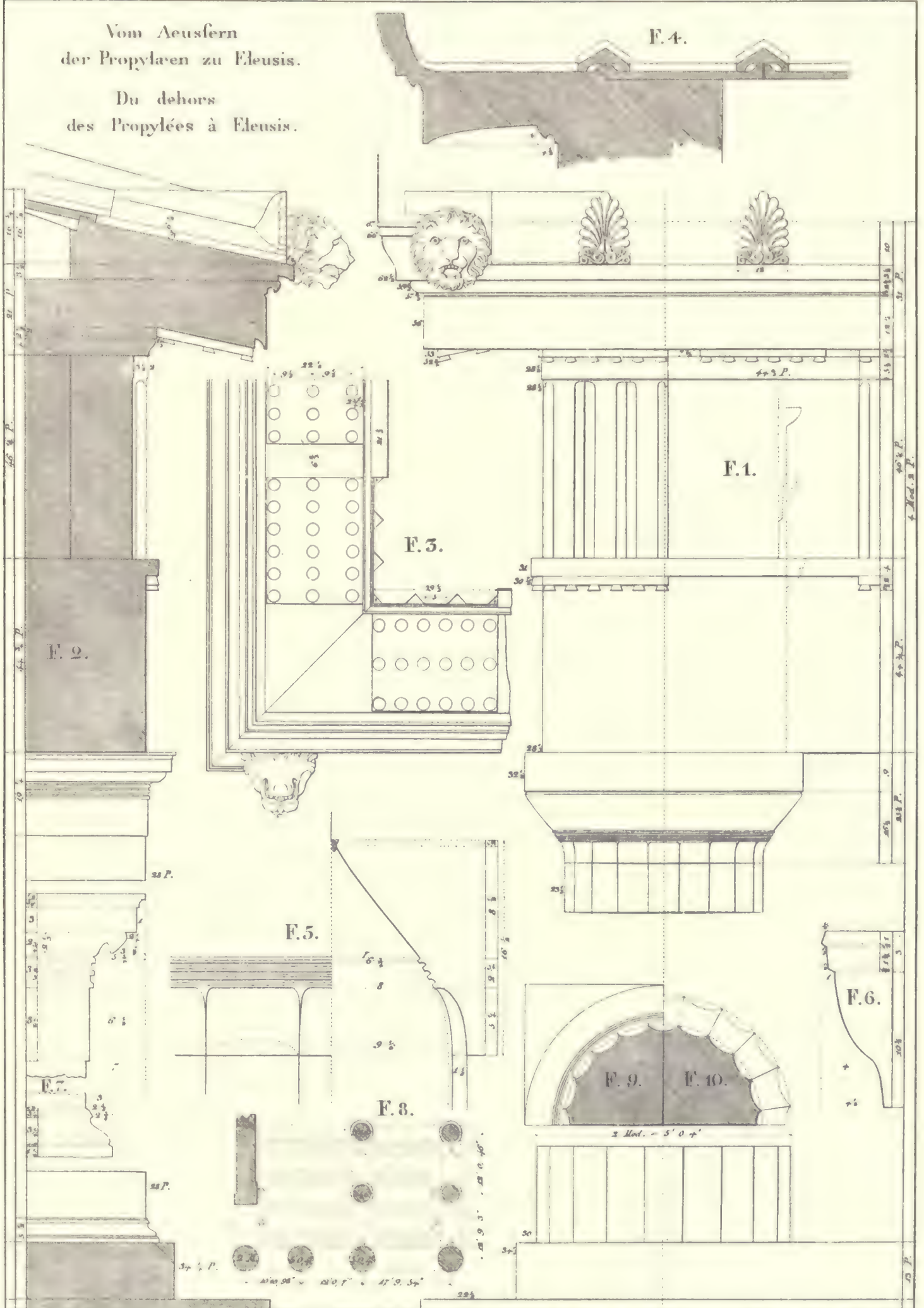
On the middle axis the columns stand wider apart than the others, in order to gain space for the passage of the procession. Over this central space there is an extra triglyph and metope on account of the wider span, and because of this wider span, the architrave and frieze is in one piece for obvious structural purposes.

Noteworthy is the Lesbian leaf-wave moulding resting on the top of the frieze, which we look upon as an Ionic addition to the Doric triglyph. The cyma of the pediment ends on the side at a lion's head near the corner.

As the Propylæ represents today only a heap of ruins, the height of the column cannot be exactly ascertained. In relation to that of the Athenæan Propylæ the height of the Doric columns of Eleusis must have been 9.21 meters; that is, 11 modules $17\frac{1}{2}$ parts. The shaft shows a slight entasis.

Vom Aeusfern
der Propyläen zu Eleusis.

Du dehors
des Propylées à Eleusis.



J. M. Hirsch del. 1830

Grav. v. C. Mare in Berlin

Partes 30. 20. 10. 0 1. 2. 3. Modul

PLATE 13.

THE TEMPLE OF DIANA AT ELEUSIS.

This excellent small Temple before the outer hall of the Propylæ of the Demeter Temple was of the form in antis, and built of Pentelic marble. Fig. 5 shows the plan of its pronaos which is in keeping with the epinaos of same form. The Temple was almost twice as long as wide. On Plate 3 half of the front is represented.

Fig. 1, Plate 13, shows a corner of the long side, the frieze of which has 13 triglyphs and 12 metopes. Fig. 2 is a section of the entablature, the parts of which are tied together by means of wooden dowels. The stone courses behind the architrave are represented only conjecturally. The ornament was as usual painted on the profiles.

On account of the shallow depth of the pronaos, beams were not necessary to carry the ceiling, which consisted only of coverplates. At Fig. 5 by dotted lines is shown a plan of this ceiling and at Fig. 2 a section. In this figure a wall should have been shown under the entablature; to save space we have shown the column capital instead. The column height was only 4.32 meters.

Figs. 1, 2 and 4 show the construction of the roof. The cyma is carried through on the long side. The roof tile consisted of burnt clay. On the following Plate 14, Fig. 6, we see the very rich outer tile shown at a larger scale. The woodwork shown on our plate is, naturally, only assumed.

The proportions of this Temple are suitable for the small dimensions of the same, but would be too bold if carried out at a larger scale,

DORISCHE ORDNUNG,
vom Tempel der Diana - Propylæa zu Eleusis.

ORDRE DORIQUE,
du Temple de Diane-Propylees à Eleusis.

7' 7.9

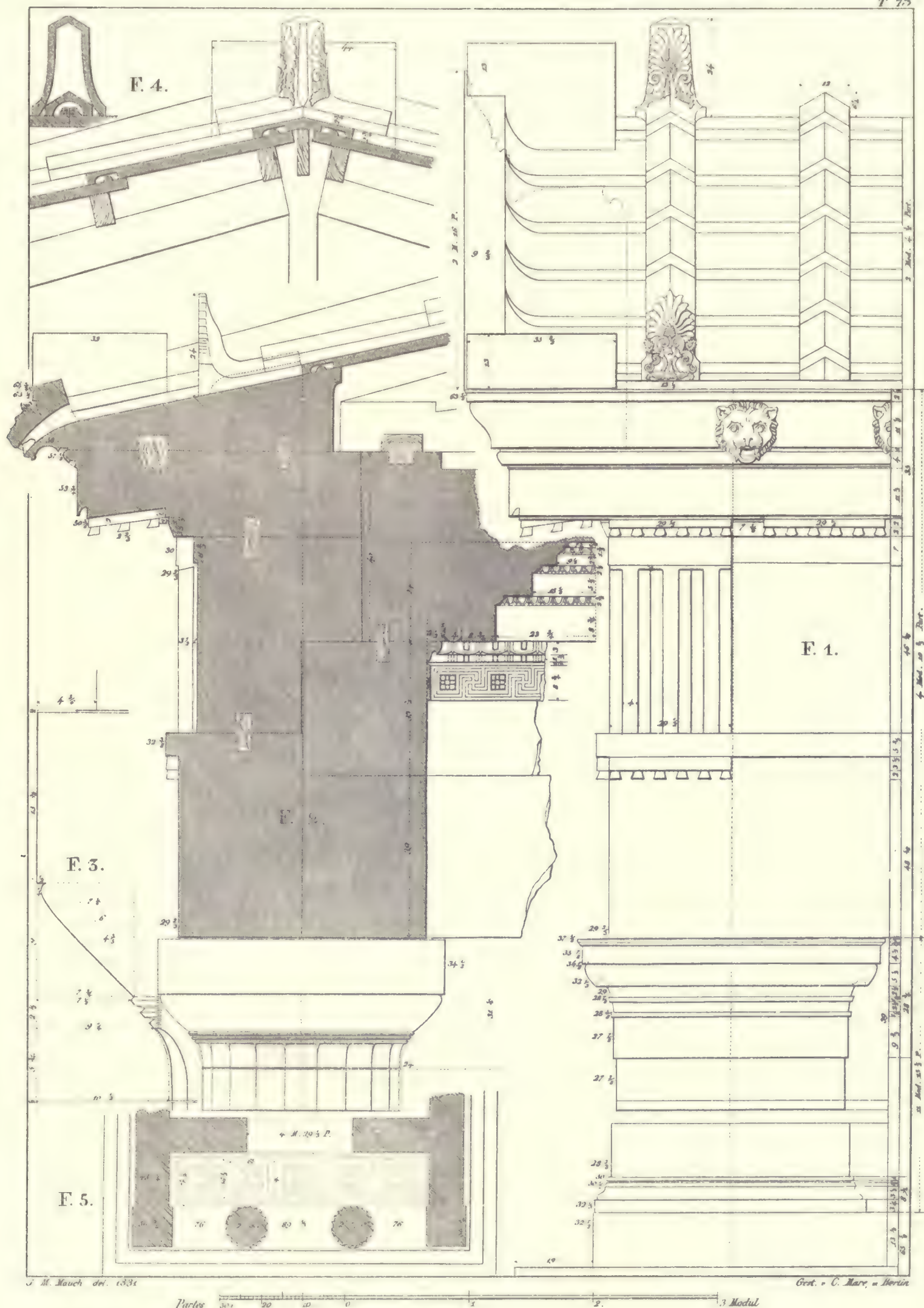


PLATE 14.

THE TEMPLE OF JUPITER AT NEMEA.

The ruins of this Temple lie between Argos and Corinth, about five hours from the latter. Two columns with part of the antæ and the beams over still stand erect. The Temple was Peripteral, with 6 columns on the front and 13 on the long side.

On Plate 3 is a representation of the entire order at the corner, the details being shown on Plate 14. The columns are of the most slender Grecian Doric, $6\frac{1}{2}$ diameters in height, and carry a very light Doric entablature which is not much over $1\frac{1}{2}$ diameters in height. Only such pieces of the entablature as are shown at Fig. 2 remain. The cyma, as also the pediment cornice, is an assumption.

Fig. 1 shows an elevation of the portico. Fig. 3 shows a plan of the capital; and the profile of the fine echinus and cinctures are shown at Fig. 5. At Fig. 4 is a plan of the column shaft.

In comparing the architecture of these remains with other monuments we notice here a degree of fineness in the details which borders on the extreme, to which the Grecian architects in their effort for elegance and lightness were lead. In consequence, after Alexander's time, the plain Doric style very seldom answered.

Fig. 6 shows the outer tile from the Temple of Diana at Eleusis described on previous plate.

Fig. 7 shows a similar tile from the Parthenon at Athens, described on Plate 8,

vom Tempel des Jupiter-Nemæus zwischen Argos und Korinth.

du Temple de Jupiter-Némée entre Argos
et Corinthe.

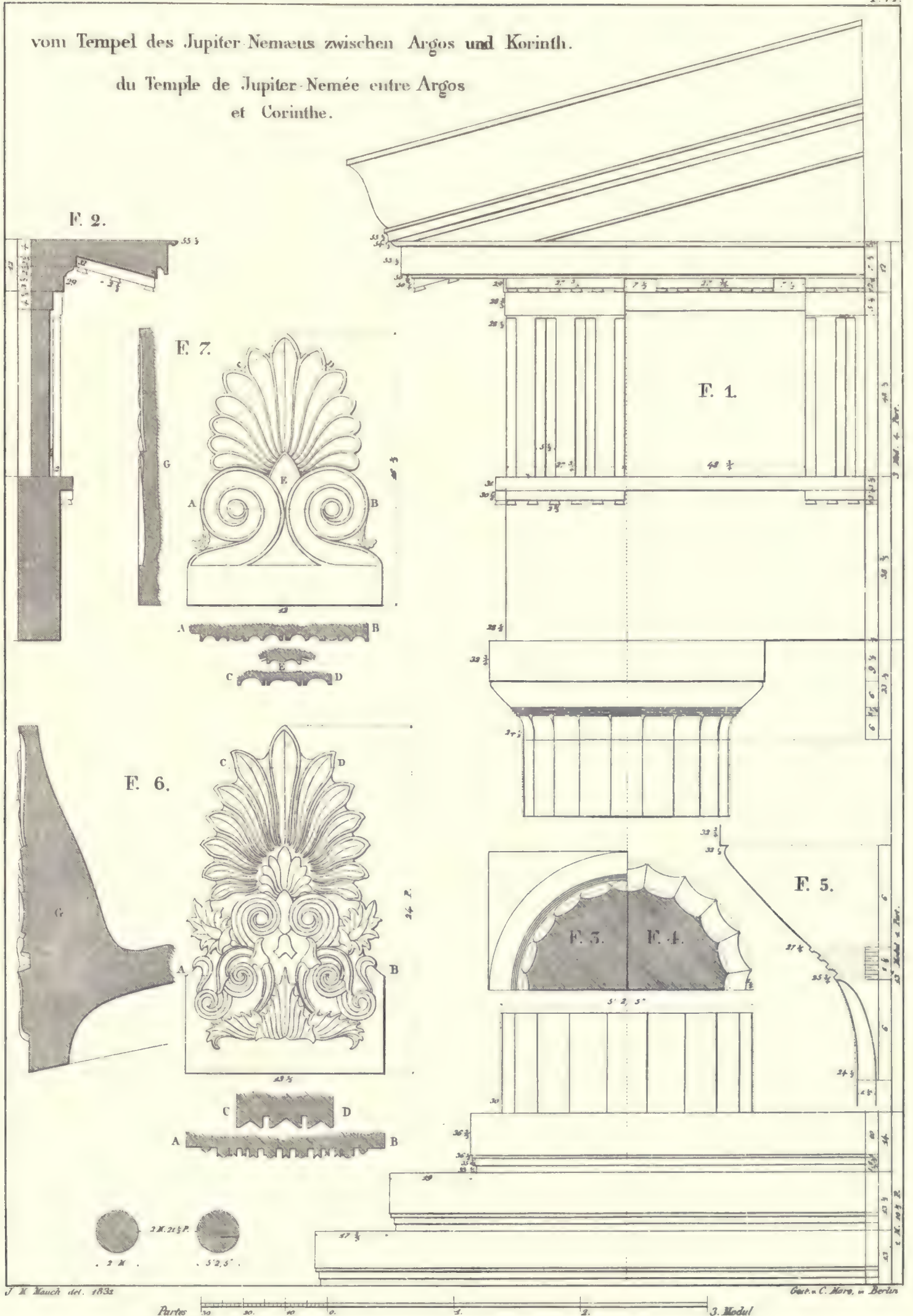


PLATE 15.

FROM THE TEMPLE OF APOLLO AND FROM THE PORTICO OF KING PHILIPPUS ON THE ISLAND OF DELOS.

The Portico of King Philippus on the Island of Delos was, as the inscription on the architrave reads, dedicated by Philip V. to Apollo, and therefore erected in the 3d century B. C. The $6\frac{1}{2}$ diameters high, slightly tapered columns have a weak expressionless capital, with a small and straight line echinus, as shown at B. Also uninteresting are the weak architrave and the thin mutules.

The remains of the Apollo Temple on the island of Delos, the order of which is shown on Plate 15, probably belongs to the 3d century B. C. The practically $5\frac{1}{2}$ diameters high strongly tapered columns with heavy capitals have a mantel and therefore were unfinished. The triglyphs, wide in relation to their height, project over the front surface of the architrave, which is unusual. The structure was a Peripteral with 6 and 13 columns. The covering over the pteroma consisted of wood as ascertained by later excavations by the French government.

The Temple of Corinth, of which our plate shows a column and architrave is of the heaviest Doric order and probably one of the oldest. The monolithic columns of the same are of limestone and covered with stucco. They are counted as among the most stumpy, inasmuch as their height is $4\frac{1}{4}$ diameters, and they stand very close together. The wide spreading capital shows a high, strong swelling echinus with a shallow abacus, and the hypotrachelium or necking is separated from the shaft by three grooves. The architrave, the only remaining portion of the entablature, is high in relation to the column and is without guttæ under the regula. From the narrow spacing of the columns it is presumed that this Temple in a measure belongs to the "*opus monotriglyphon*" as triglyphs were placed only over the columns and none between. The Temple was, as the latest excavations by the German Archæological Institute under Dörpfelds indicate, a Peripteral of 6 and 15 columns; the interior was divided into two cellas, and it was therefore a double Temple. The lower diameter of the columns on the long side was 1.72 meters and on the short side 1.63 meters. Remains of red painted wall and floor coating have been found at the later explorations.

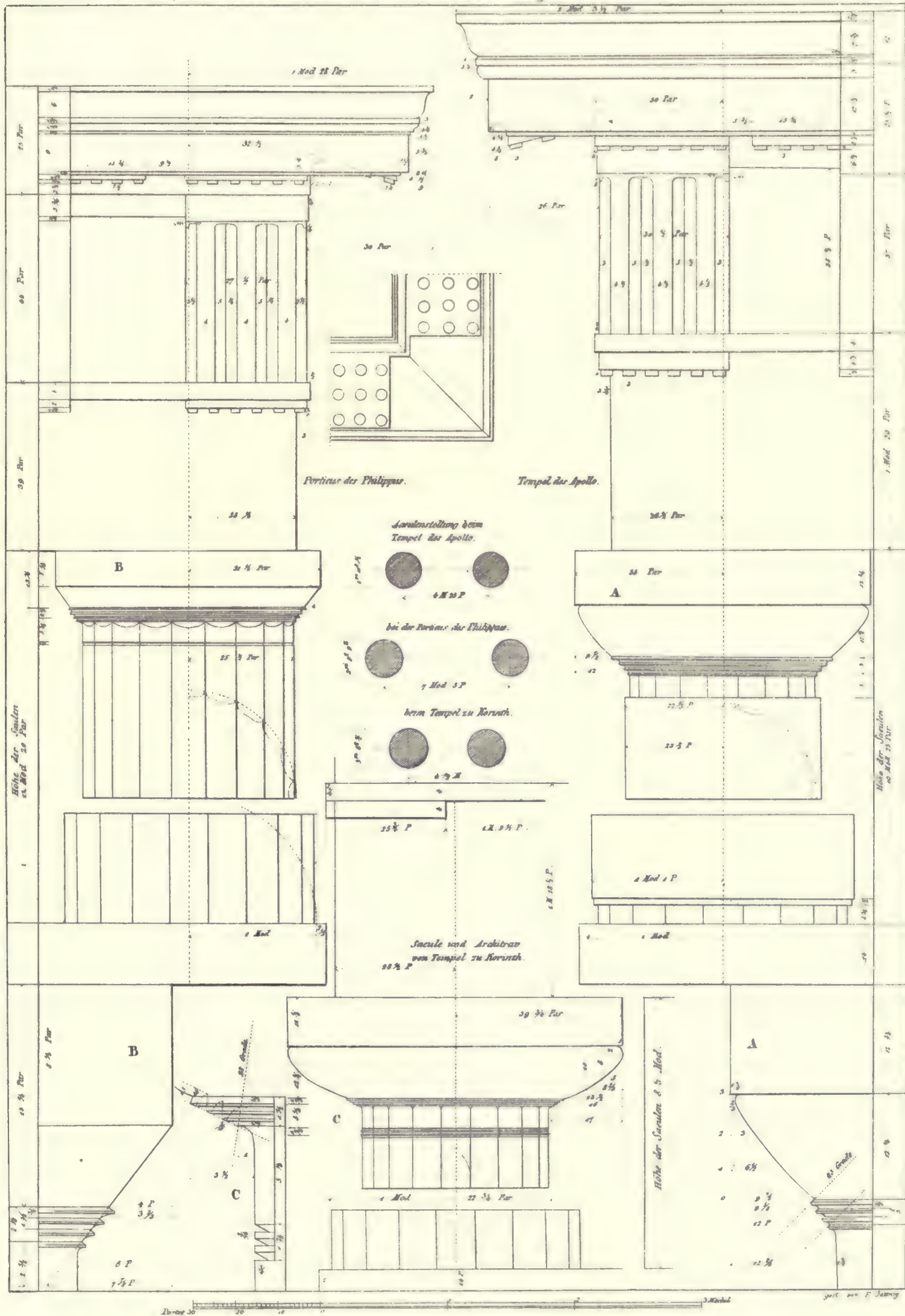


PLATE 16.

DIFFERENT GRECIAN DORIC COLUMN CAPITALS.

Column capitals of the Market Gate of Augustus in Athens:

It is a four-columned Prostyle, which forms the Propylæ of the new Market dedicated to Athena Archegetis, erected about the time of the birth of Christ. The whole capital is shallow and weak. The small, strong swelling echinus is connected to the very short hypotrachelium or necking by three relatively large cinctures in a very inelegant vertical profile. The capital appears as a medium between the Grecian and Roman form.

The Doric column capital of the Propylæ at Athens:

We have already mentioned this Temple as having been copied in the Propylæ of Eleusis at plate 12.

For the column capitals of the Basilica and the Small Temple in Pæstum we refer to the text of plates 4 and 5.

The other two capitals from Pæstum are to be considered as a peculiar departure in their caricatured form from a Doric capital.

The Doric frieze presented on the lower part of the plate which is found in the wall of the Metropolitan Church at Athens presumably belonged to the Eleusinia in Athens, an altar upon which the Eleusinian Demeter was sacrificed. The symbols of the frieze indicate such a use.

Von der Porticus des Augustus zu Athen.

Von den Propyläen zu Athen.

13 Par
3 1/2
6
10

Höhe der Säulen
& Durchmesser.

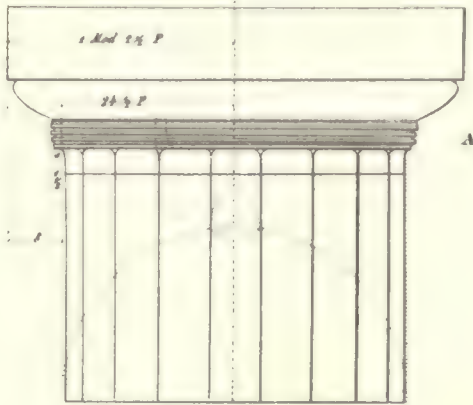
3 1/2 P

1 Mod 4 P
4 1/2
10 P

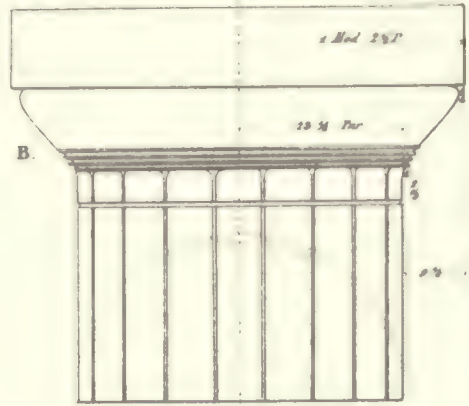
Höhe der Säulen
& 1/4 Durchmesser.

4 1/2 Par

1



A



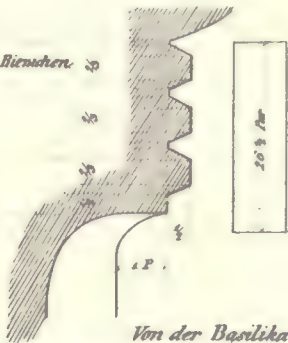
B

13 Par
3 1/2
6
10

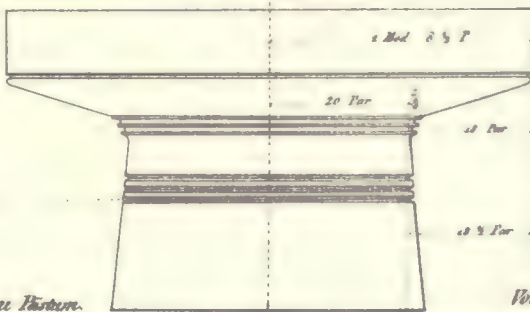
Höhe der Säulen
& 1/4 Durchmesser.

3 Par

Profil der Nischen A.



Zu Paestum gefunden.



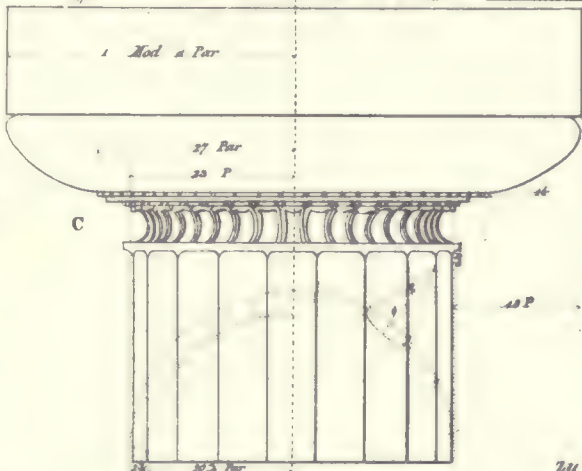
9
6
12 1/2
6
12 1/2
6

Profil der Nischen B.

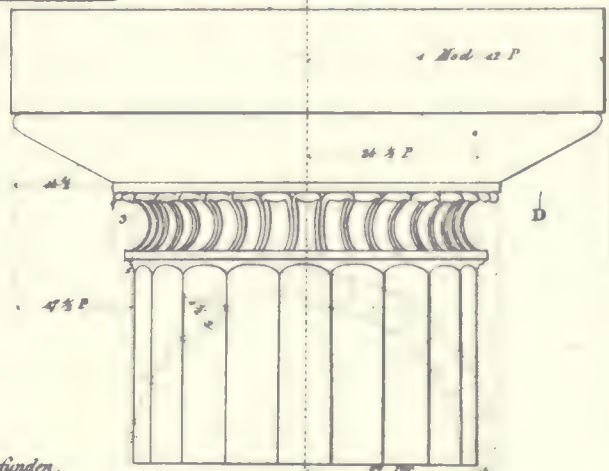


Von der Basilika zu Histon.

Vom kleinen Tempel zu Histon.



C



D

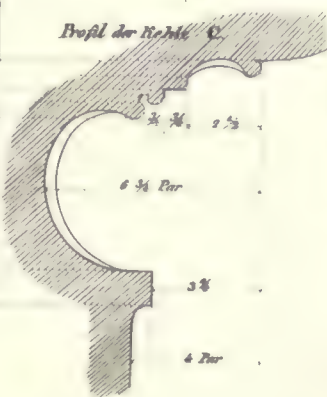
13 Par
3 1/2
6
10

Höhe der Säulen
& 1/4 Durchmesser.

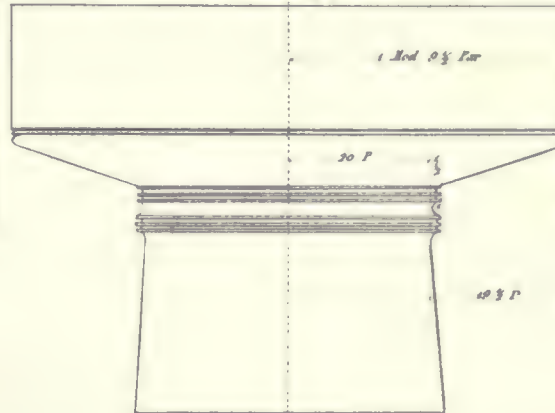
1 1/2 Par

1

Profil der Nische C.



Zu Paestum gefunden.



4 1/2 P
7 1/2
2 1/2
2 1/2
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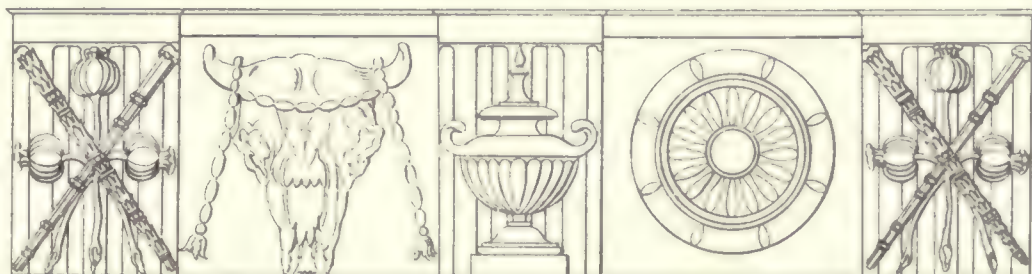
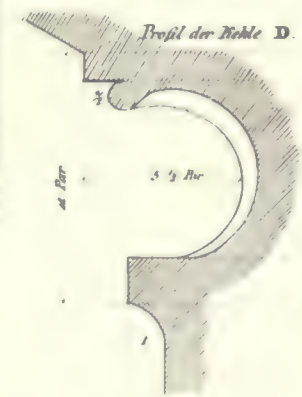


PLATE 17.
FROM THE CHORAGIC MONUMENT OF THRASYLLUS AND THRASYKLES
AT ATHENS.

This monument now only preserved by Stuart and Revett's work was built of Pentelic marble and ornamented the entrance to a grotto which was located on the south side of the hill of the Acropolis. Thrasyllus, in the year 320 B. C., won a victory in a musical contest, and as a prize, a brass tripod, which he placed in this cave. According to Pausanias, sculptures were also found in this grotto which represented Apollo, Diana, and Niobiden. About five years after this victory of Thrasyllus his son Thrasykles, as the inscription states, also won tripods as prizes and had them placed on both attics at the side of the figure Dionysos on the summit. This sitting figure is preserved in London. It carried on its lap a small tripod, of which traces are found. We refer to the same at Plate 100.

Though no triglyphs, but wreaths, decorate the frieze of the monument, it is to be classed as the Doric style as expressed by the pillars with their capitals, the corona, the *tanæ*, and the *guttæ*. The latter are here continuous, as on this monument the location of the triglyphs do not have to be expressed. As the mutules are missing the continuation of the regula is without motive but is carried along only to recall the original method. The corona has no cyma because the monument was without a roof. The attics are probably a later addition which the placing of the tripods required.

Fig. 3 is an elevation of the corner and Fig. 4 a section through the attic on the dotted line on Fig. 1.

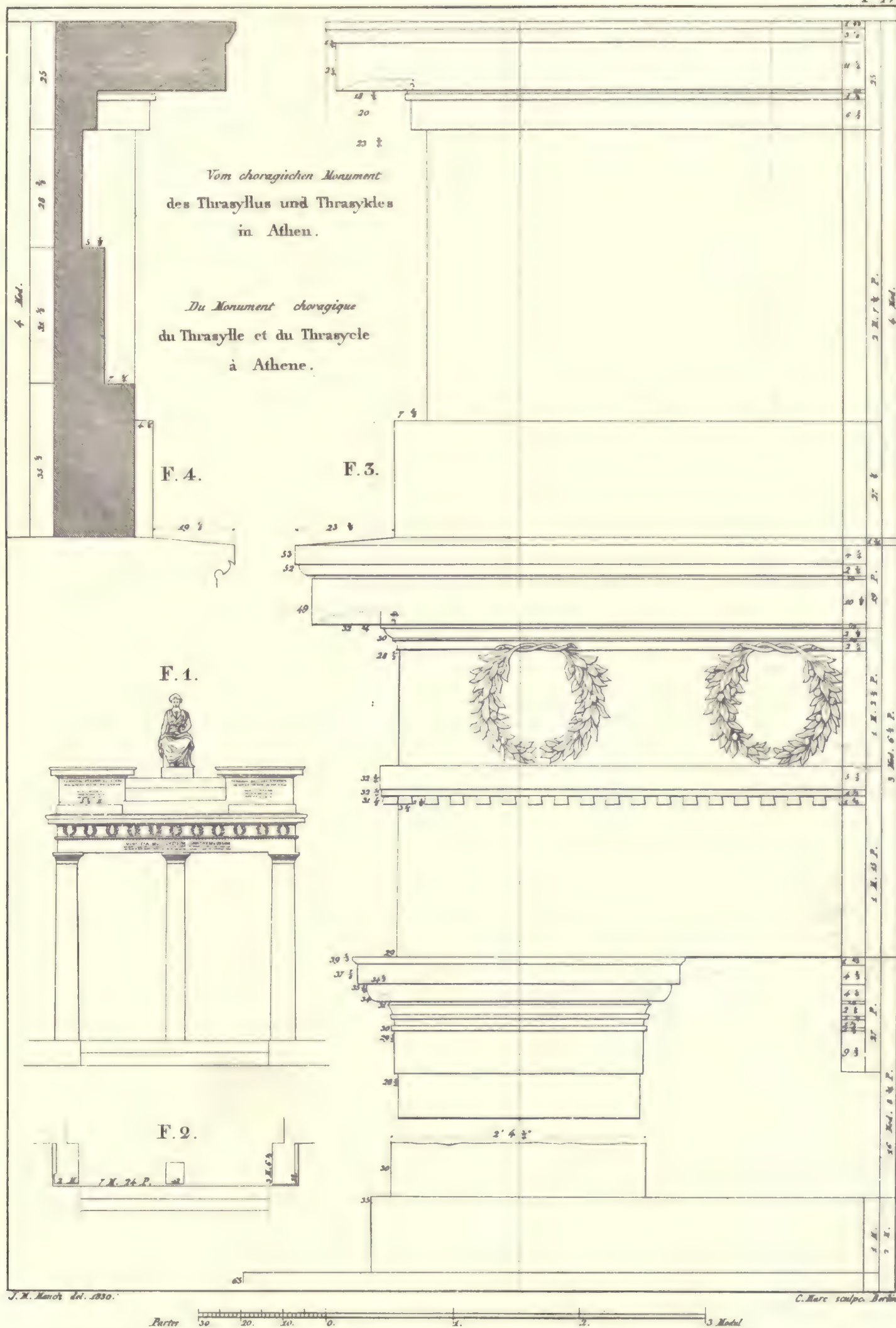


PLATE 17a.

FROM THE THOLOS OR CIRCULAR MONUMENT NEAR EPIDAUROS.

The remains of this excellent Rotunda were discovered by the Grecian Archæological Company. Not so much its size and historical worth, as its prominent artistic arrangement makes the Rotunda one of the most magnificent monuments which have come to us from the Grecian times. Pausanias, in his description, attributes it to Polycleitos the younger, and dates it from the end of the fourth or the beginning of the third century B. C.

Externally this building is of the Doric order, and internally is of one of the earliest examples of Corinthian. Only the foundation of the structure remains, for the very peculiar labyrinthic arrangement of which, no satisfactory explanation has been given (Fig. 14). Only single limestone slabs of the floor of the outer walk or portico remain in place. From these the spacing and number of columns were determined. The discovery of the columns and entablature as also the wall stones, whose arrangement was ascertained from their curved form, made it possible to restore the outer structure as shown at Fig. 15. The material of the portico or at least of the columns and entablature was of limestone. The cella was surrounded by a peristyle of 26 Doric columns. On the interior were placed 14 Corinthian columns in such a way as to form an aisle between them and the wall. The radius of the outer peristyle measured to the column centers is 9.55 meters; the diameter of the cella was about 13 meters in the clear.

The outer columns Figs. 1 and 2 have an entablature which from its character indicates the later Doric style. The architrave is considerably smaller than the frieze; the corona has a Lesbian cymatium under the mutules.

The metopes present, in the large rosettes of strong relief and detail, a certain plastic effect. The marble cyma is boldly executed in acanthus leafwork, indicating later Grecian times. Some parts of the foliage are worked entirely free from the background.

Figs. 1 and 2 show the detail of the columns and the entablature of the Doric portico. The ceiling of this portico forms coffers, the section of which as well as the inner side of the Doric entablature is shown in Fig. 4 and by dotted lines at Fig. 5; Fig. 6 shows the plan of this ceiling. Each of the coffers is surrounded by a pearl bead; the mouldings are plain but were probably decorated by painting.

At Figs. 7 and 8 are shown the marble entablature and capital of the Corinthian order. The entablature consists of an architrave of three fascias, a frieze of the form of an *f*, and on top of same a cornice which at the same time forms a support for the ceiling. The interior face of the entablature shows rich ornament while the outer face is smooth but was probably decorated with painting. The profile at Fig. 8 indicates the stone coffered ceiling of the aisle of the cella, and Fig. 10 the plan. Of the interior capitals only one complete example has been found, the balance are only in pieces. The broken pieces show in the modeling of the leafwork not unimportant differences from the example. This capital is therefore, from its somewhat uninspired execution, to be considered as a model or a copy of the real capitals.

In the elastic swing of the frieze is expressed the Corinthian style.

The rich ornamental treatment of this monument will for all times be admired, and it is only equalled in richness and execution by the Erechtheum at Athens.

Fig. 1. Column and entablature of the Doric Portico.

2. Lower drum of the Column.

3. Upper part of the Triglyph.

4. Inner side of the Doric Entablature.

5. (Dotted Lines) Coffers of the Portico Ceiling.

6. Plan of the Coffers.

7. 8. Elevation and Section of the Inner Entablature.

9. Base of the Corinthian Column.

10. Coffers of the Interior Aisle.

11. Wave ornament on the inner side of 10.

12. Wedge piece between Coffers.

13. Plan of the Rotunda.

14. Plan of Labyrinths or Foundation.

15. Section.

16. Leaf-wave from the outer side of Cella Wall.

17. Leaf-wave from the inner Entablature.

18. Profile of base Exterior and Interior of Cella Wall.

19. Profile of leaf-wave 16 and Top Moulding of Cella Wall.

20. Profile of the Corinthian Column Base.

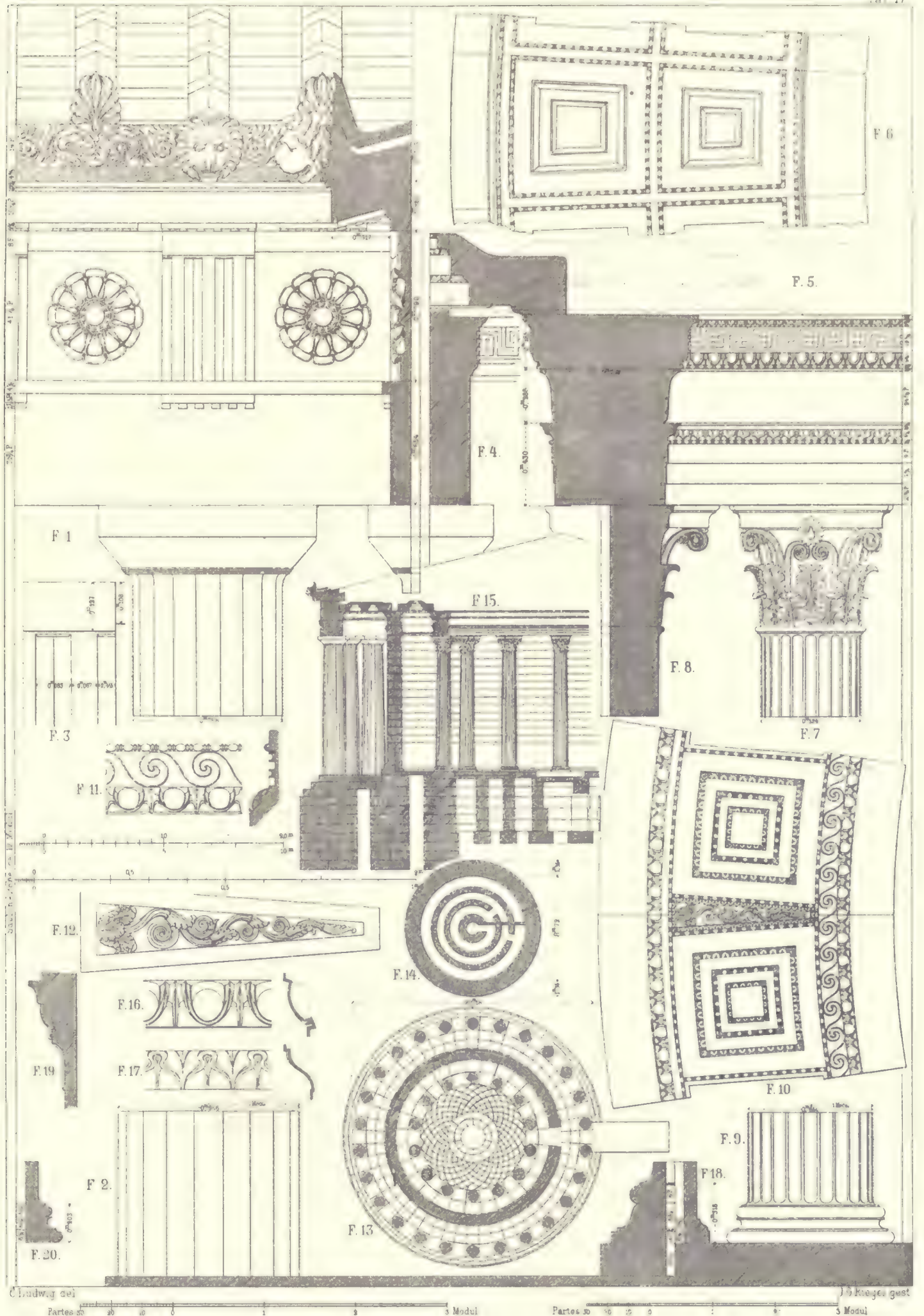


PLATE 18.

THE THEATRE OF MARCELLUS AT ROME.

This large building of travertine stone erected by Marcellus, a nephew of Emperor Augustus, forms a half circle and seated 30,000 spectators. It had originally four stories, of which parts of the two lower remain. Both these stories show arcades, the columns of the lower being Doric, half engaged and carrying an entablature with a triglyphic frieze. On this plate is shown the Doric order of the lower story.

Under the very striking, far-projecting corona are found dentils. The abacus of the capital seems a little heavy. The column is shown without a base.*

The Doric order of this monument is of good proportions and has attracted the attention of critical architects generally. The later masters seem to have taken this order for their model. Probably by lessening the projection of the cornice the whole would be improved.

The arches of the arcade, without archivolts, rest on imposts which are shown at the left of the plate.

The second story is decorated with the Ionic order shown on Plate 45.

* The column is now known to have had a base.—Sturgis' Dic.

18

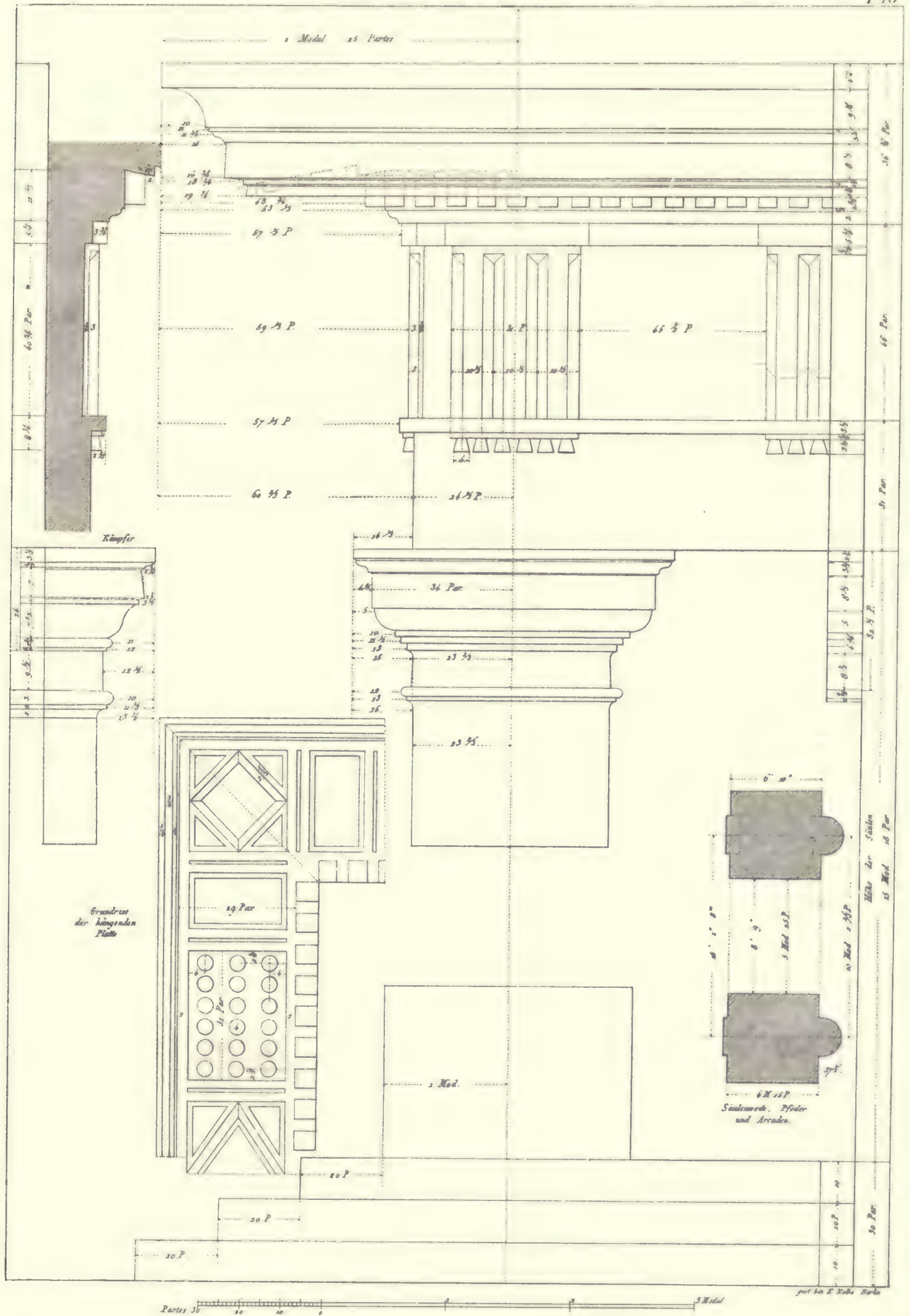


PLATE 19.

FROM ALBANO NEAR ROME.

This order was discovered at Albano, near Rome, and Vignola seemed to have formed his Doric order with mutules therefrom (see Plate 24). We see from this example how decorative the Doric style was treated by the Romans. We find Ionic and Doric mixed here. The columns are slimmer than the former Doric proportions. They measure $7\frac{1}{2}$ diameters in height, and have no base, and their shaft is the Ionic with the upper and lower ending thereof. The capital is Doric of Ionic feeling, with an enriched echinus. The hypotrachelium here becomes an actual necking which on other Roman examples we find decorated with rosettes. The low or shallow architrave is, as in the Ionic, divided into facias. The tænia by breaking around under the triglyphs of the wide frieze becomes the regula also, and the guttæ are connected to it by a bead. The triglyph on the corner is placed over the center of the column so that here only half metopes occur. The strong overhanging corona has on its under side over the triglyphs, mutules, in the profile of a reverse moulding with guttæ attached, the number of the latter being double the usual (see Greek examples). The cyma has the profile of a cavetto, a form of the cyma which often occurs in Roman structures. Suffice to say the strong earnest style of the Grecians was entirely changed under the hands of the Romans and also by the architects of the Italian Renaissance time, and entirely stripped of its ancient and strong characteristics.

SÄULE, CAPITÄEL UND GEBÄLK DORISCHER ORDNUNG
zu Albano bei Rom gefunden.

T. 19

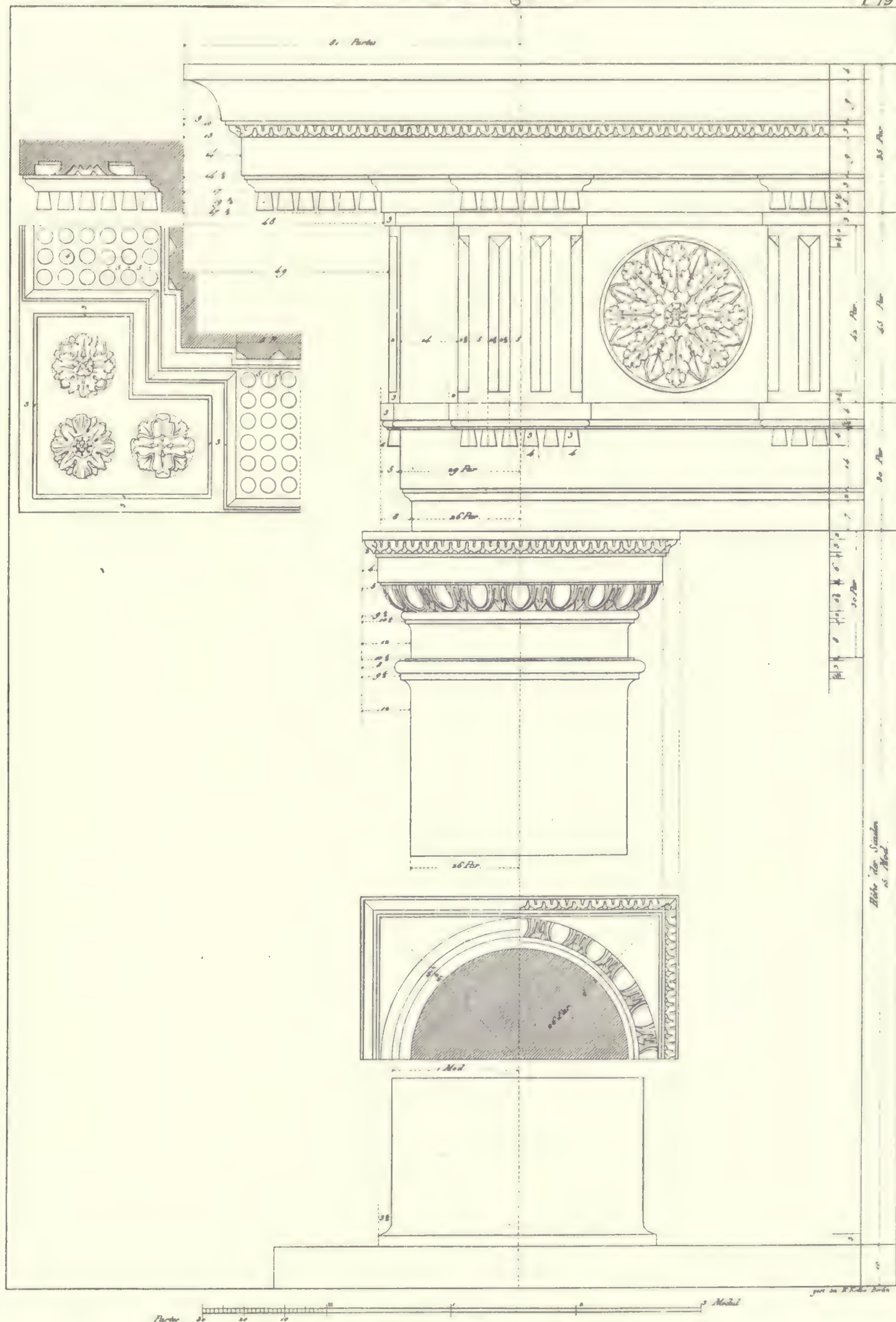


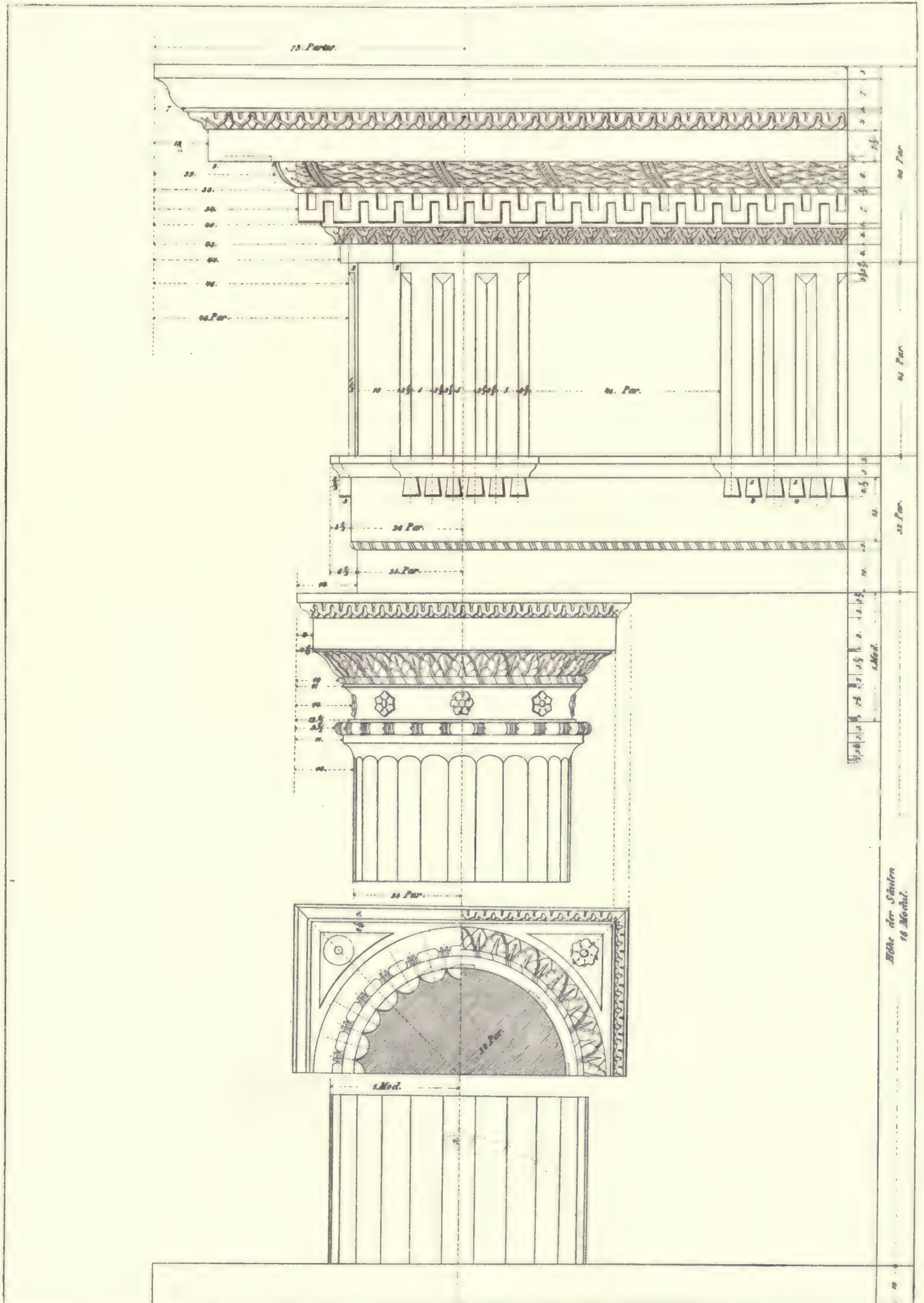
PLATE 20.
FROM THE BATHS OF DIOCLETIAN.

This example which was taken from the Baths of Diocletian, built about 300 A. D., has a good proportion. The clean profile of the cornice, the decorated members and the dentils in the form of the Grecian meander, actually belong more to the Ionic Order than to the Doric. The band with its cymatium, which crowns the triglyphs, continues straight through without breaking around and has possibly too heavy a projection. The architrave is plain in comparison with the rich cornice with which the capital of excellent character stands in harmony.

The column capital has under the abacus instead of the usual echinus, following the profile of a cyma recta, a double row of leaves, which can be taken as an expression of the minimum of ornamentation. The rosettes on the four corners of the under surface of the abacus are well placed. The architrave after the Ionic method, is divided into two facias, which are connected by an astragal or bead. The Ionic band or cymatium of the architrave breaks around under the triglyphs as a regula and shows at these places a reminiscence of the Doric regula; but the six guttæ are without motive on account of the missing guttæ under the corona, the cornice being Ionic and not Doric. The dentils here appear changed into a meander, and instead of the cymatium over the same we see a band of laurel leaves bound together with ribbons which could be interpreted as a connection between the meander and the soffit of the corona. We can attribute this ornament to the desire of the architect for variation,

DORISCHE SÄULE, CAPITÄEL UND GEBÄLK
aus den Thermen des Diocletian.

T. 20.



Höhe der Säulen
16 Modul.

PLATE 21.

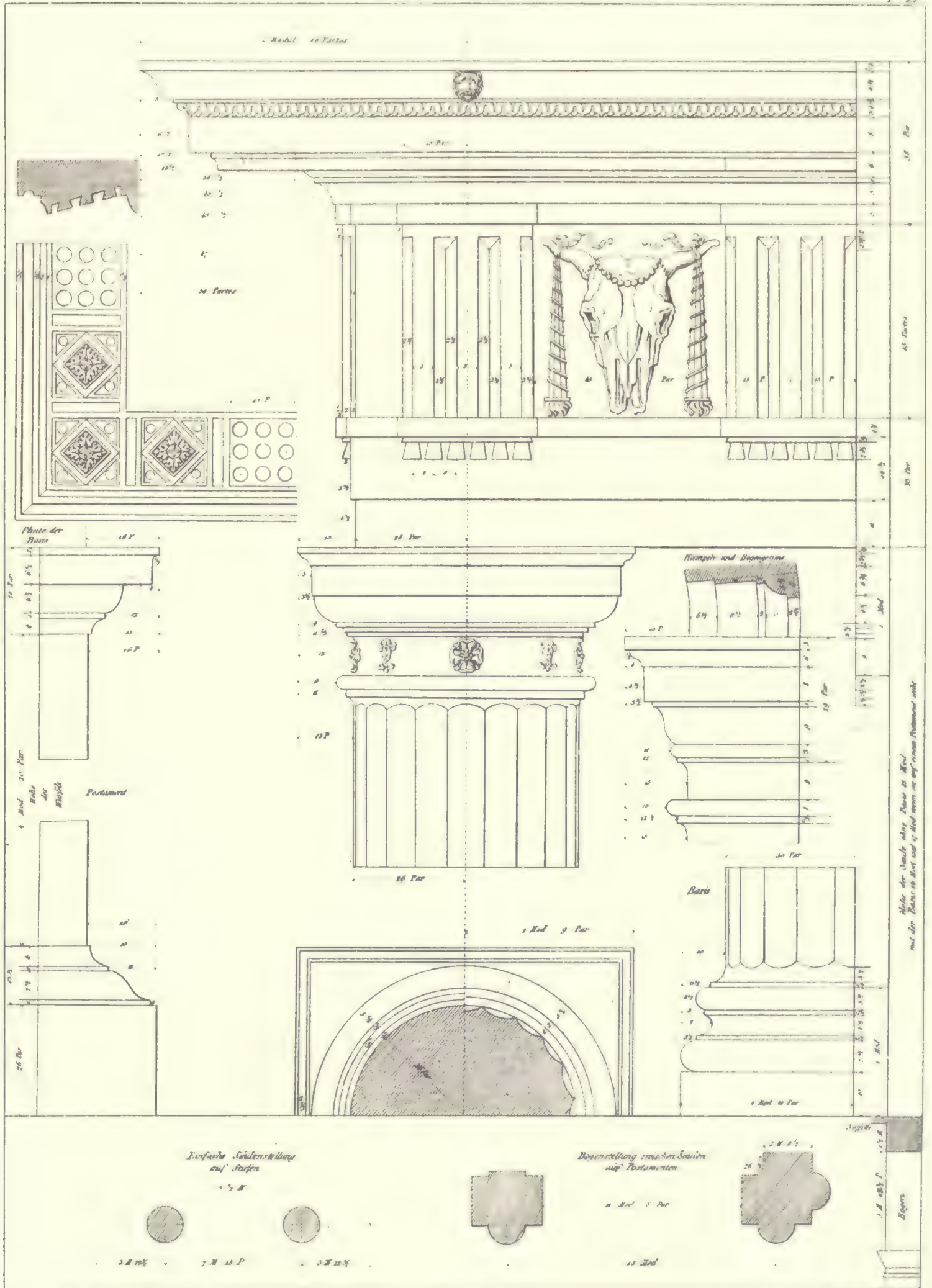
DORIC ORDER OF ANDREA PALLADIO.

Andrea Palladio (1518–1580) allowed himself little deviation from his models, although he has not given the corona of the cornice such a strong projection as we find on the Doric order of the Theatre of Marcellus. One could criticise that he has undercut the drops of the soffit too much, but it seems to have been his purpose thereby to make the cornice appear stronger, to compensate in a measure for the considerably lessened projection. He has not used dentils, his triglyphs project, and the *tænia* whereon the drops or *guttæ* hang breaks out around, although the antiques continued unbroken. The architrave has two *facias* similar to the Baths of Diocletian on the previous plate. The capital is the same as at Marcellus, except it differs in the proportions of its members. The impost also is arranged similar to that model.

POSTAMENT, BASIS, CAPITEL UND GEBÄLK DORISCHER ORDNUNG

nach Andreas Palladio.

T 21



Maße der Säule ohne Basis 20 Mod.
mit der Basis 22 Mod. und 12 Mod. wenn sie auf einem Postament steht.

Einfache Säulenstellung auf Stufen

Doppelstellung zwischen Säulen auf Postamenten



PLATE 22.

DORIC ORDER OF VINCENZ SCAMOZZI.

Scamozzi (1552-1616) has modeled his order after the Baths of Diocletian, and has followed almost entirely the principal proportions. Only the single members have a different relation among themselves. He has decorated the soffit of the corona, given the triglyphs too much projection, and used a plain tænia and broken same around under the triglyphs. The architrave has two facias as in Palladio's, except it is higher. His capital has a certain charm. The base of his column is much too rich for the entablature, which has only one ornamented member. The impost is shown on Plate 25.

POSTAMENT, BASIS, CAPITAL UND GEBÄLK DORISCHER ORDNUNG.
von Vincenz Scamozzi.

T. 22

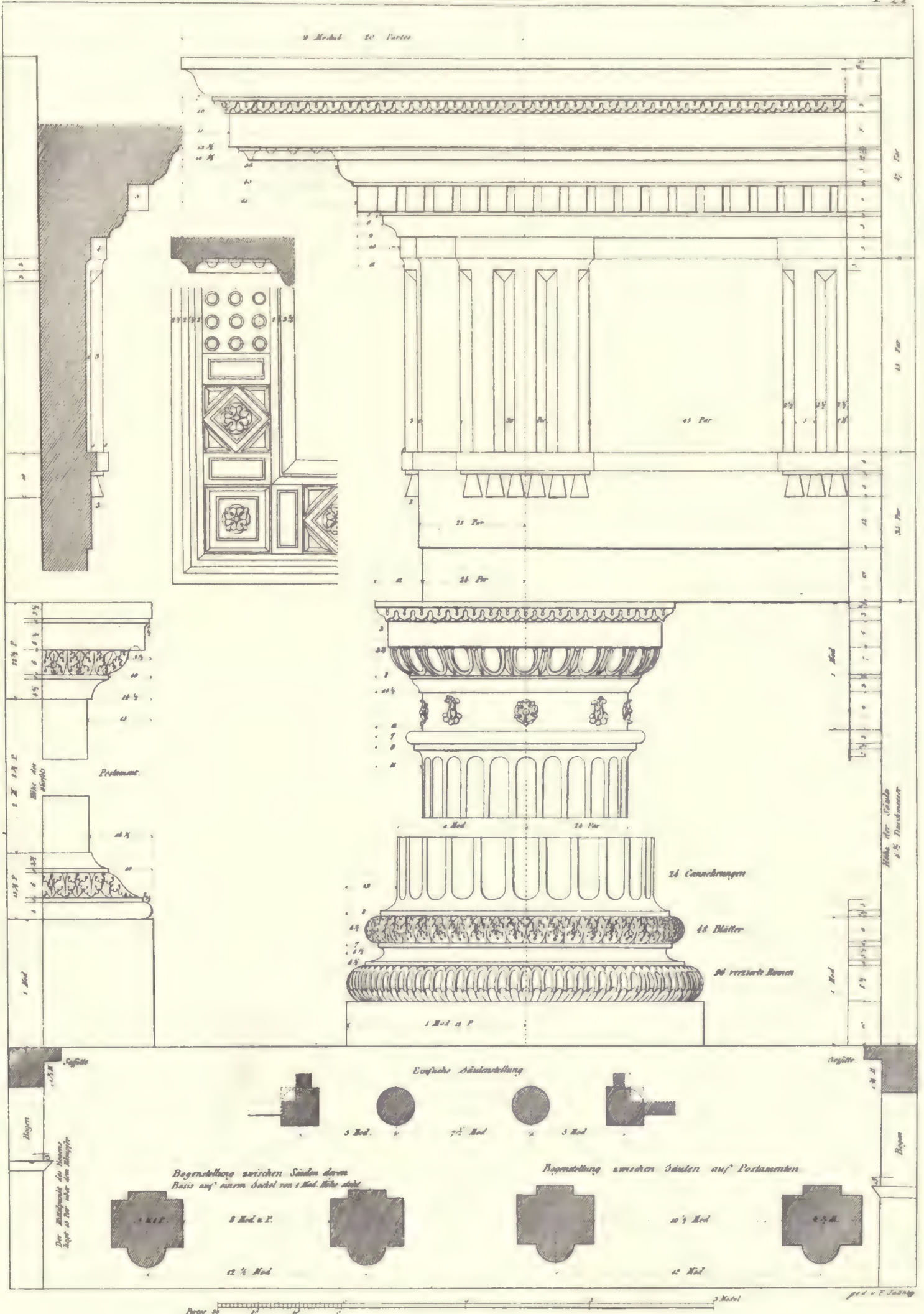


PLATE 23.

DENTICULAR DORIC ORDER OF J. BAROZZIO VIGNOLA.

Vignola (1507–1573) has in his order arranged all parts and proportions after the Theatre of Marcellus, except the columns have been given the so-called Tuscan base. On the soffit of the corona appears as an ornament between the guttæ, the fulmina or bundle of lightening mentioned by Vitruvius. The member under the neck of the capital projects too far. The architrave is too low, the tænia too heavy and the triglyphs too flat. All these deviations, however, place the order of this master at no disadvantage in comparison with the orders of Palladio and Scamozzi.

Names of the Members of the Denticulated Doric Order.

THE CORNICE.

- A. Fillet
- B. Cavetto
- C. Small Fillet
- D. Cyma reversa; Cymatium of the Corona.
- E. Corona.
- F. Listel.
- G. Dentils.
- H. Band whereon Dentils are placed.

THE FRIEZE.

- I. Cyma reversa; Cymatium of the Frieze.
- K. Capital of the Triglyphs and Metopes.
- L. Metopes.
- M. Triglyphs.
- N. Interglyph.
- O. Glyph or Channel.
- P. Semiglyph.

THE ARCHITRAVE.

- Q. Tænia.
- R. Regula.
- S. Guttæ.
- T. Facia.

THE CAPITAL.

- U. Small Fillet
- V. Cyma reversa
- X. Facia.
- Y. Ovolo or Echinus.
- Z. Small Fillets or Annulets.
- a. Neck.

THE COLUMN SHAFT.

- b. Astragal.
- c. Fillet.

- d. The real shaft.
- e. 20 Channels.
- f. Fillet.

THE BASE.

- g. Bead; Astragal.
- h. Torus.
- i. Plinth.

THE PEDESTAL.

- k. Fillet
- l. Quarter Round
- m. Fillet
- n. Corona or Facia
- o. Cyma reversa.
- p. Die; Dado.
- q. Fillet
- r. Bead; Astragal
- s. Inverted Cyma reversa
- t. Plinth
- u. Socle or Sub Base.

THE IMPOST AND ARCHIVOLT.

- v. Fillet.
- x. Ovolo or Quarter Round.
- y. Bead; Astragal.
- z. Fillet.
- a. Upper Facia.
- b. Lower Facia.

THE SOFFIT OF THE CORNICE.

- c. Drip.
- d. Channel.
- e. Guttæ.
- f. Panels.

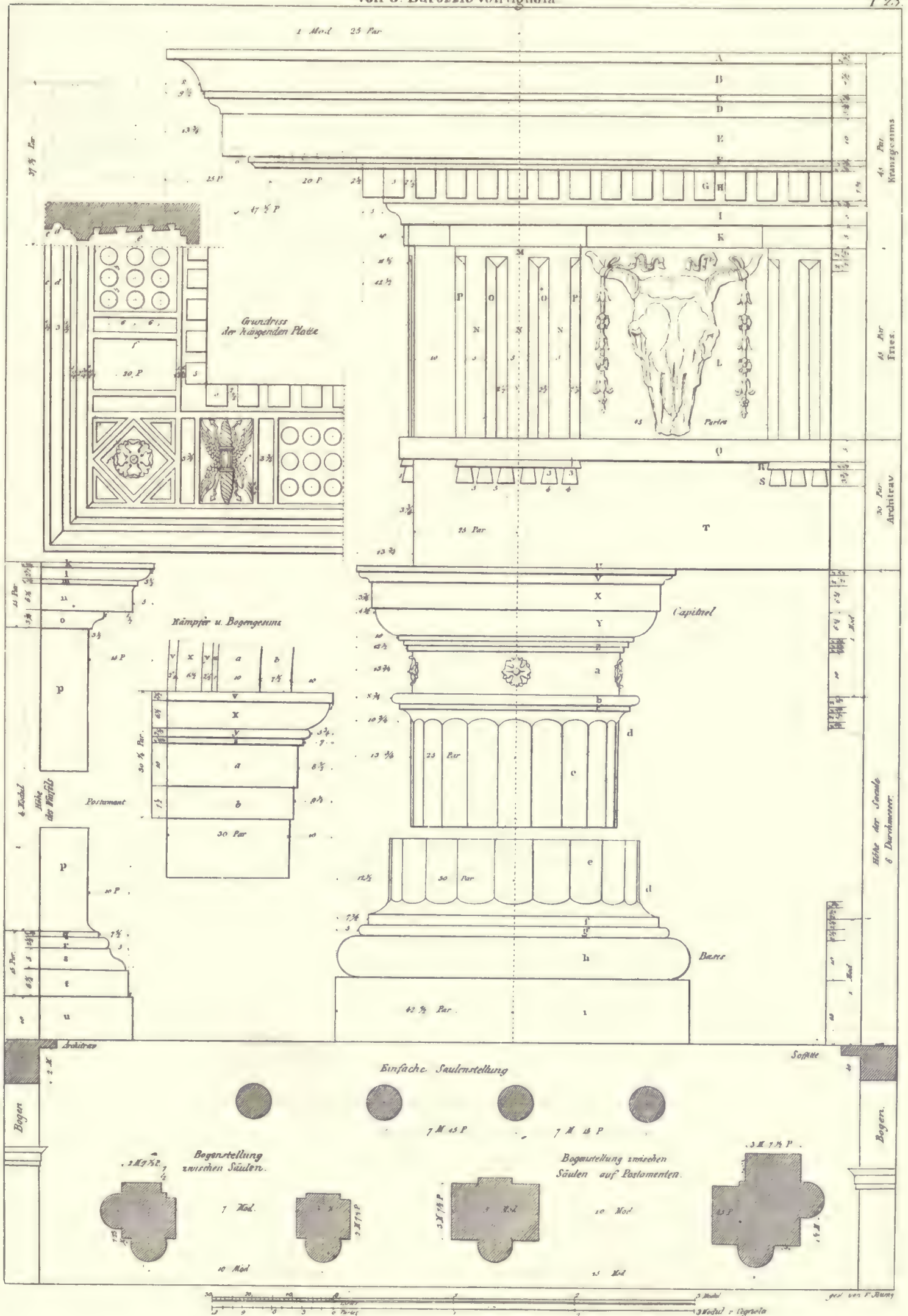


PLATE 24.

MUTULAR DORIC ORDER BY VIGNOLA.

This order is different than the former by having the architrave divided into two facias and that instead of the dentils under the soffit we here have mutules. The parts which are criticised in the former plate we do not find improved here. The neck of the capital does not join nicely with the member above.* The architrave seems still weaker by its division into two facias. The mutules, viewed from a standpoint of strength and direction, are actually beam ends, and Vignola would never have made them so heavy had he seen the Greek monuments. He has placed them over the triglyphs, and not over the metopes, and has given them the guttæ, which here seem very rich in 6 rows of 6 each, as they appear on the order of Albano on Plate 19.

Names of the Principal Members of the Mutular Doric Order. (For other members see former plate.)

THE CORNICE.

- A. Cyma; Cyma recta.
- B. Cymatium of the Mutule; Cyma reversa.
- C. Mutules.
- D. Mutules, side view.
- E. Guttæ.

THE FRIEZE.

- F. Quarter-round; Cymatium of the Frieze.

THE ARCHITRAVE.

- G. Upper Facia.
- H. Lower Facia.

THE CAPITAL.

- I. Cyma recta.
- K. Enriched Ovolo or Echinus.
- L. Pearl Bead; Astragal.
- M. Rosettes.

THE SHAFT.

- N. 20 Channels.

PLAN OF THE CAPITAL.

- O. Soffit of the Abacus.
- P. Echinus.
- Q. Edge of Rosettes.

THE SHAFT.

- R. 24 Flutes.
- S. Fillet.

THE ATTIC BASE.

- T. Upper Torus.
- U. Fillet.
- V. Scotia.
- X. Fillet.
- Y. Lower Torus.
- Z. Plinth.

* Other editions of Vignola show the neck joined to the members above by a conge.—ED.

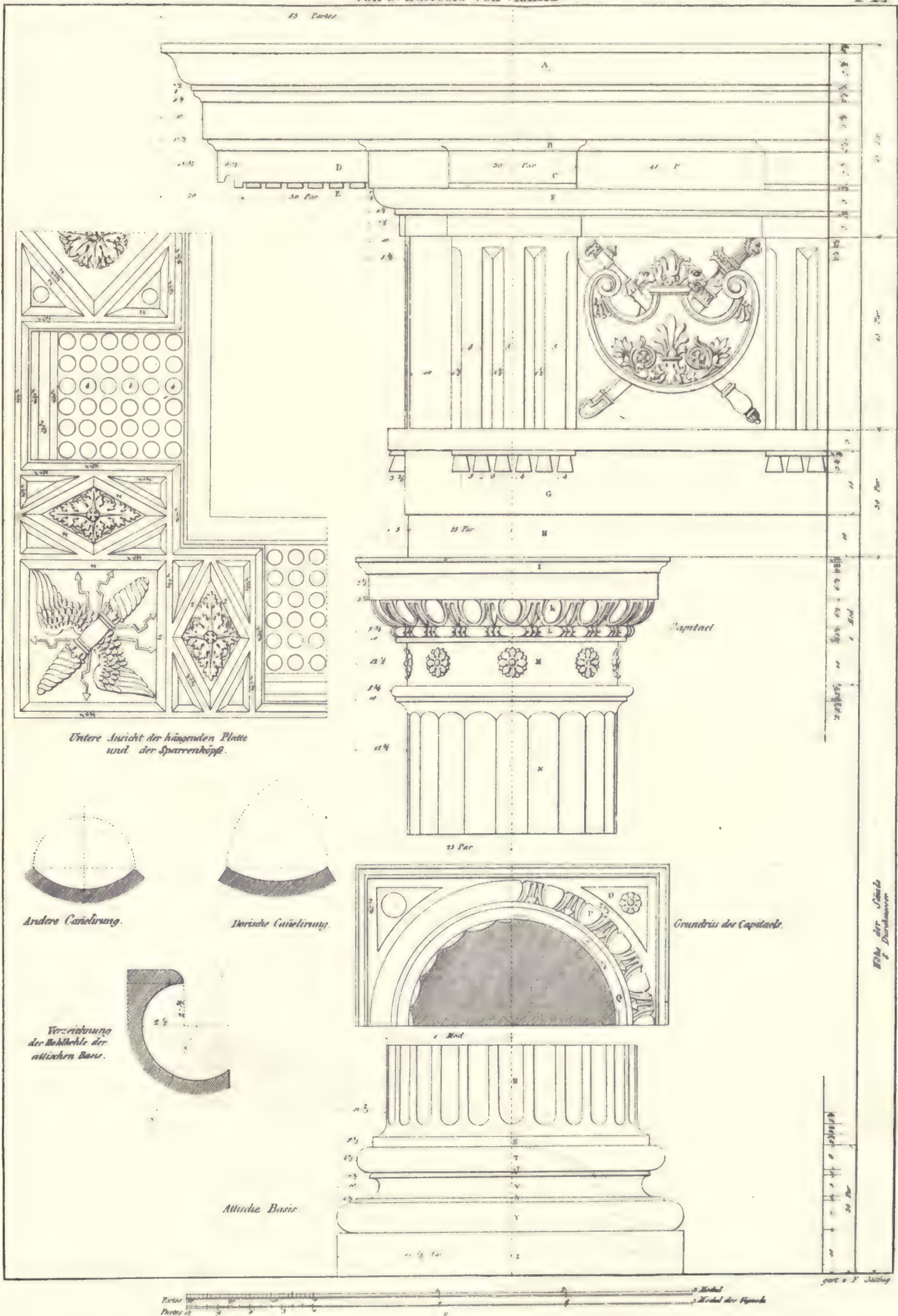


PLATE 25.

DORIC ORDER BY PHILIBERT DE LORME AND JOSEPH VIALA.

These two orders are modeled after the other Italian masters and for that reason we pass them over without criticism.

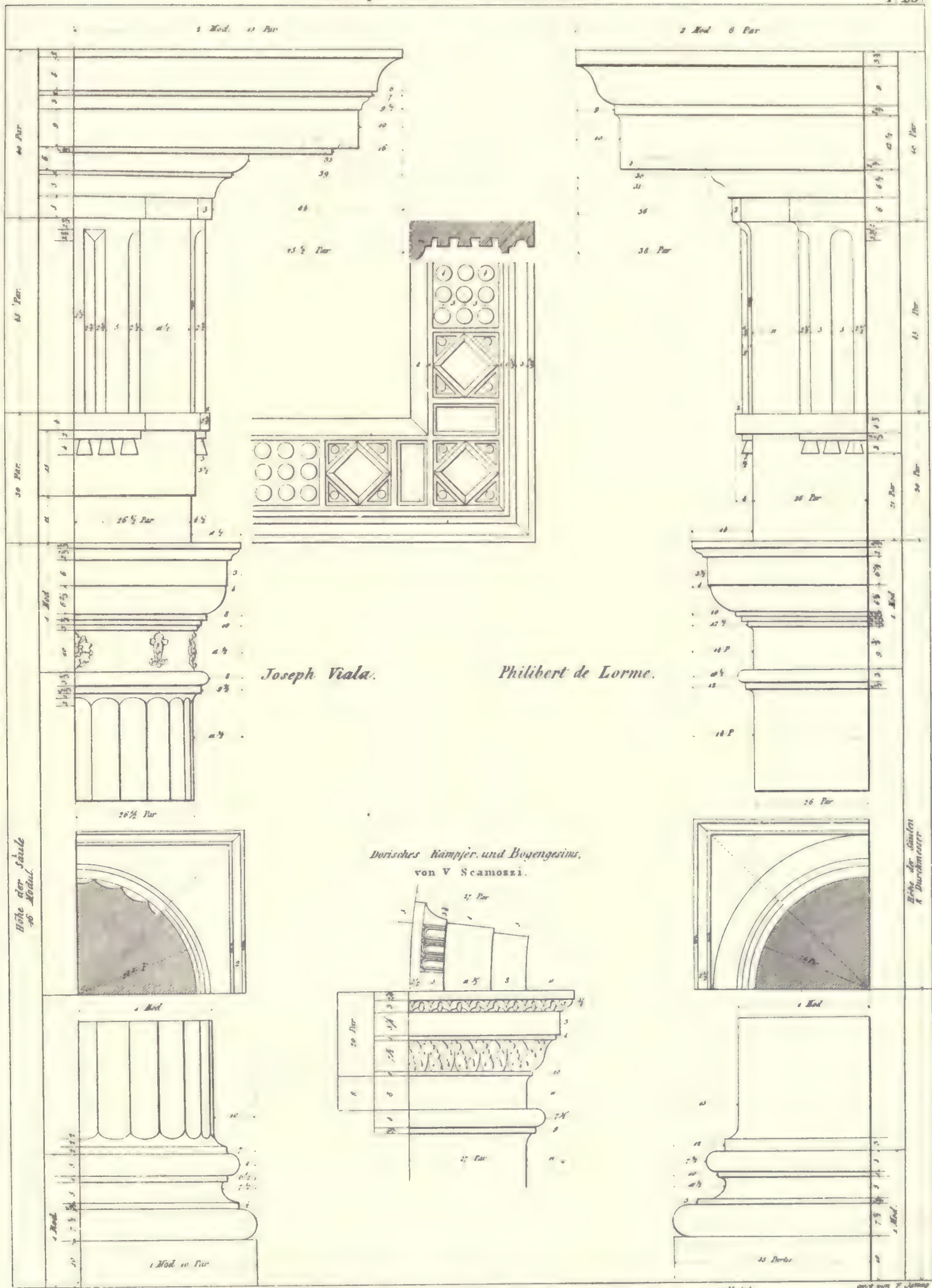


PLATE 26.

TUSCAN ORDER BY PALLADIO.

From the writings by Vitruvius on Tuscan buildings we note that the Tuscans or Etruscans placed wooden beams, which carried the projecting roof beams, on widely spaced stone columns of Ionic-Doric form. Of the wood beams naturally nothing remains, and of the columns little or nothing. Only here and there in Tuscan localities, for instance at Vulci, have antique column capitals of Doric style been found which we are inclined to take for the ancient Tuscan. What the Italian later masters took for the Tuscan order in the ruins of Roman monuments is only a variation of the Roman-Doric architecture. Palladio, Scamozzi, Serlio, and Vignola have formulated rules for the Tuscan order as invented by them.

Palladio gives two different profiles for the capital as well as the base of the Tuscan order. In the relation of the members of the cornice we find too great a similarity in form and size, and the bed mould which undercuts the corona seems to impart to the latter too blunt an appearance.

T' 26



PLATE 27.

TUSCAN ORDER BY SCAMOZZI.

Scamozzi, in comparison with the other masters, has made this order, as also his remaining orders, the most elaborate. He has multiplied the members and has indicated projecting blocks in the frieze which have a similarity to triglyphs, but has left them smooth and placed them only over each column. He shows the capital in different designs. The column which is half a diameter longer and has a taper of 3 parts more than that of Vignola seems a little too slender.

T. 27.



PLATE 28.

TUSCAN ORDER BY SERLIO.

Of the four masters whom we have selected, Serlio has treated the Tuscan order the simplest. The only ornamentation is found in the soffit of the cornice. The capital and the base are in keeping with the entablature and a harmony in the whole is thereby brought about.

In another example shown on our plate Serlio has, owing to an increased projection, added two fillets to the cornice, and further he has added two members to the architrave. The divisions of the entablature he has kept the same as in the other example,

BASIS, CAPITAE UND GEBÄUDE TOSCANISCHER ORDNUNG

nach Serlio.

T 28

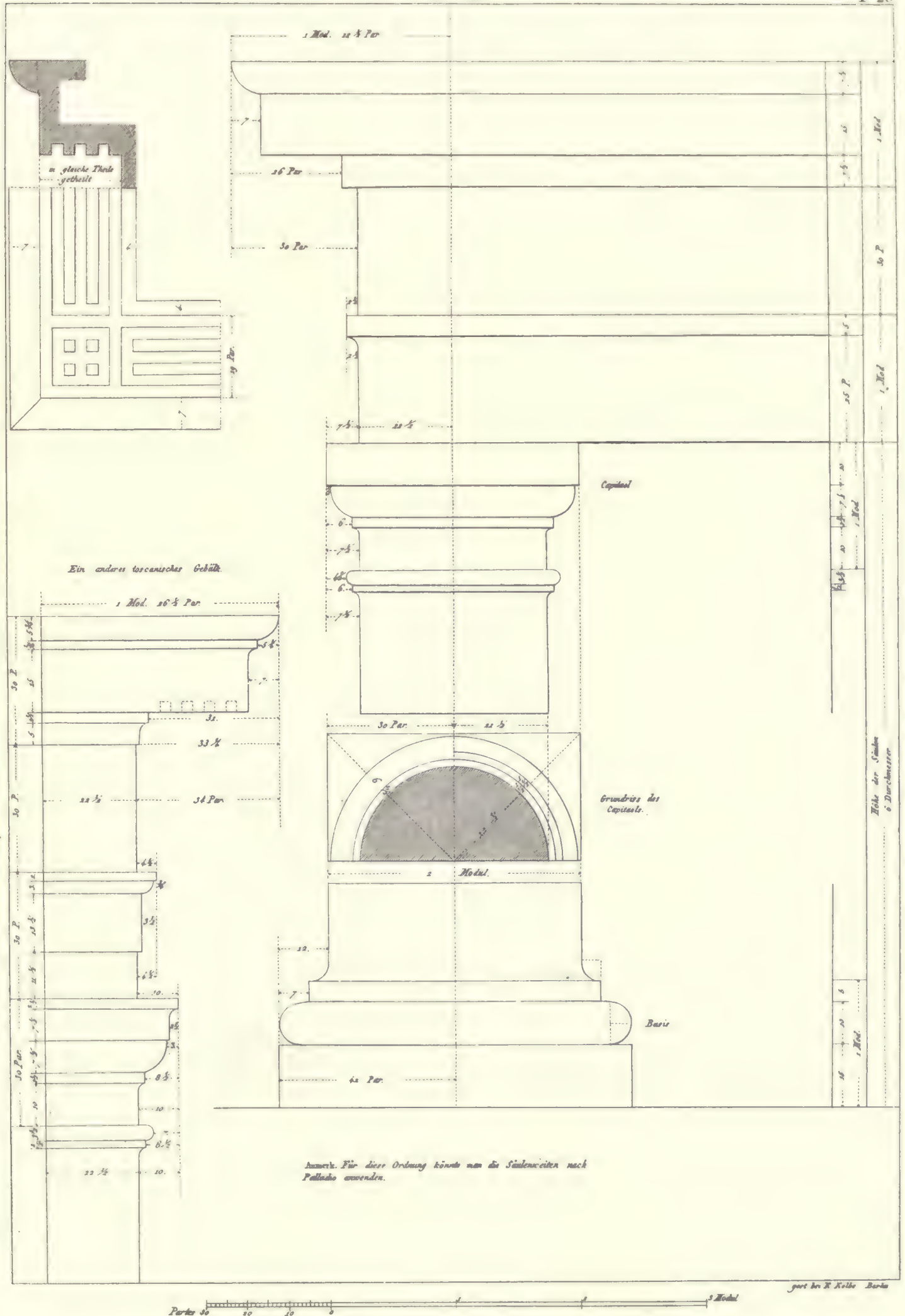


PLATE 29.

TUSCAN ORDER BY VIGNOLA.

Vignola seems to have originated his Tuscan order. The members of the cornice are good, but as a whole are too heavy. The taper of the shaft of the column begins at the top of the lower third. He adopts this rule in all five orders and the later masters seem to have followed him therein.

Names of the Members of the Tuscan Order.

THE CORNICE.

- A. Ovolo; Cyma.
- B. Bead; Astragal.
- C. Fillet.
- D. Corona.
- E. Listel.

THE FRIEZE.

- F. Cyma reversa; Cymatium of the Frieze.
- G. The Frieze.

THE ARCHITRAVE.

- H. Tænia.
- I. Facia.

THE CAPITAL.

- K. Fillet of the Abacus.
- L. Abacus.
- M. Ovolo or Echinus.
- N. Fillet.
- O. Neck,

THE COLUMN SHAFT.

- P. Astragal.
- Q. Fillet.
- R. Shaft.
- S. Shaft.
- T. Fillet.

THE BASE.

- U. Torus.
- V. Plinth.

THE PEDESTAL.

- X. Fillet
 - Y. Cyma reversa
 - Z. Die; Dado.
 - a. Fillet.
 - b. Soele or Plinth.
- } Capital of the Pedestal.

THE IMPOST AND ARCHIVOLT.

- c. Fillet.
- d. Upper Facia.
- e. Lower Facia.
- f. Archivolt.

T...



PLATE 30.

EXAMPLES OF THE IONIC ORDER FROM GRECIAN MONUMENTS.

The Ionic style formed itself in early times under the people of the same name. The monuments show, from the start, slender columns with decorated capitals which latter are to be considered as evolved from the Doric whose abacus has been extended in a movement like a snail shell or ramshorn and forms the characteristic decorative volutes of the Ionic capital. The slender columns divided into 24 flutes have been given a base for better stability. The entablature has the same principal parts as the Doric, though it does not resemble the latter's relation to wood construction. It is lighter and its members of elastic form are in harmony with the capital and base. The Ionic order compared with the heavy Doric has a fresh, graceful character.

The spacing of the columns is not governed by triglyphic divisions, and they are therefore set the same distance apart, varying from $1\frac{3}{4}$ to 3 diameters on different structures.

The earliest trace of Ionic style is first mentioned by Pausanias, who first saw it carried out in the erection of the Treasure House of Myron at Olympia about 648 B. C. A little later it appeared unfolded in full magnificence in the renowned Temple of Diana of Ephesus, founded about 600 B. C., of which ancient monument no remains exist at the present time.

Plate 30 represents the three best examples of the Ionic order; the first and second from the age of Pericles, the third a little later, about the time of Alexander the Great.

The first example represents a corner of the long side of the four columned Amphiprostyle Temple on the Ilussus (river). Attention is called to the fact that the column is moved nearer the antæ than was actually the case, the proper spacing being shown in the plan, and further that the column capital shown is one from the middle columns and not from the corner column, the corner volute of the capital of the latter as also the abacus being on the diagonal. The size of the Temple is very small, the lower diameter of the column measuring not much over .53 meters, and the height 4.47 meters. The capital appears bold, due to the small size of the Temple, and the entablature heavy, its height to the upper edge of the corona being two diameters. The antæ appear noticeably narrow, but the architect showed good judgment here; for, with the full width, they would have appeared too strong when considered in relation to the long wall with which they stood in connection. We mention this also as a further reason for this antæ arrangement as we have already justified its use in the Doric order on account of the triglyphic construction.

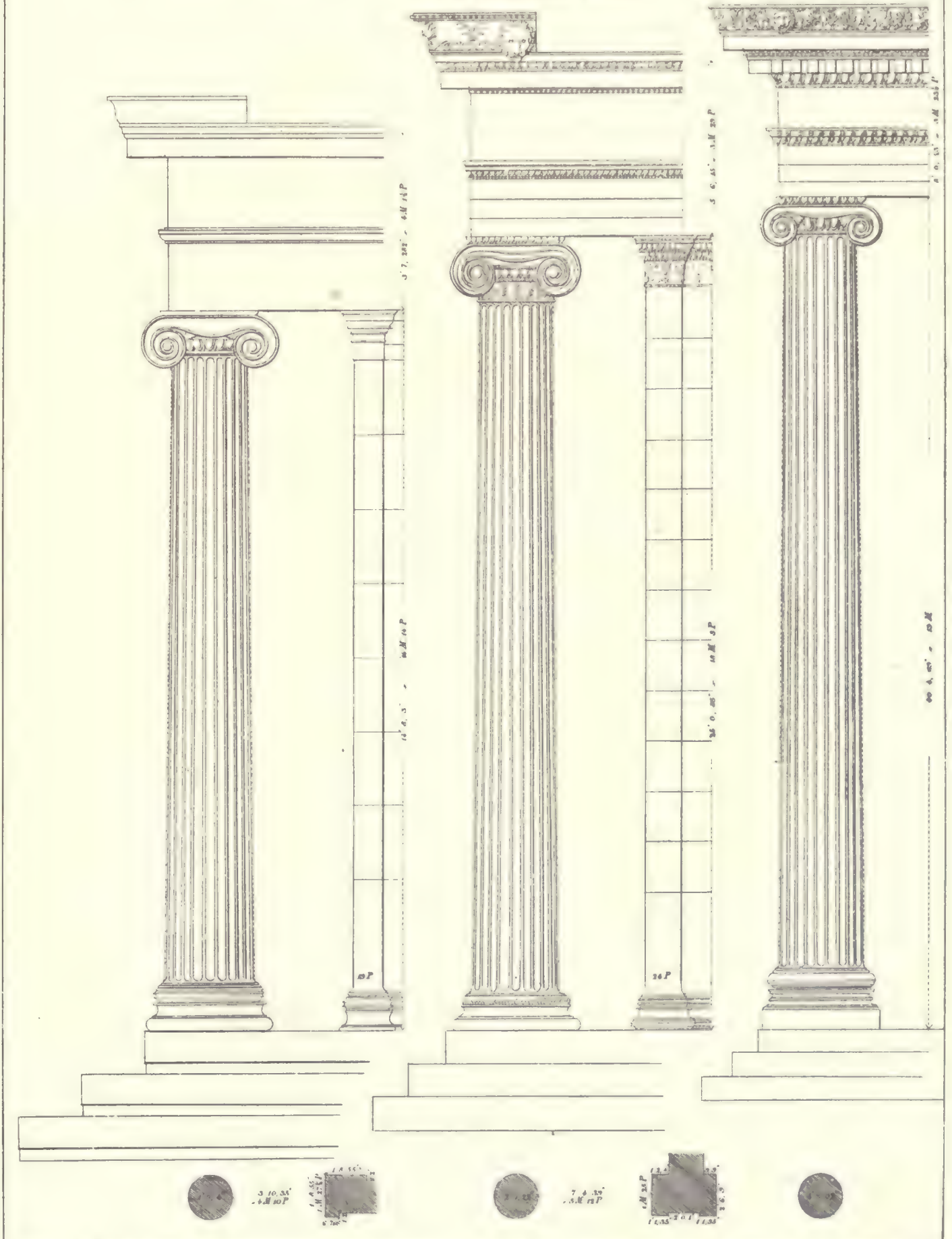
The second example is from the four columned north portico of the Temple of Minerva Polias on the Acropolis at Athens. The columns are considerably larger than those of the preceding example. They are also more slender and the other principal parts relatively finer, but actually larger, and for that reason better adapted to richer ornamentation. The anta in our example forms the end of the projecting rear wall of the portico. For this reason it was given considerable width on the outside so as to secure the stability of this wall. In order that the usual narrow width should appear on the outside the architect set the center portion of the wide surface back slightly and in this way divided the mass so dexteriously that instead of a clumsy arrangement a pleasing effect is produced. The antæ capital in the Ionic order as in the Doric is considerably different from the column capital consisting only of moulded members, not only because an ornamentation which is pleasing in the round is not suited for the square, but principally because the members of the antæ capitals were carried along under the architrave as a crowning to the wall. Naturally the ornamentation of the column capital was not suitable for this purpose. For similar reasons the profile of the antæ base is also different from that of the column. On our plate the column is shown nearer the anta than is actually the case, but the plan shows the proper distance. The entablature is in the most perfect harmony with the excellent column and anta, without any reminiscence of wood construction and we consider this Athenian Ionic order of the time of Pericles the most elegant and exquisite example known.

The third example shows the order from the Temple of Minerva Polias at Priene, in Asia Minor. It shows us the finest example of a monument of the time of Alexander of Macedonia, and here can be seen the essential difference of the Ionic order in the monuments of Asia Minor as compared with the foregoing examples of the time of Pericles. The height of the columns can not be measured, as the entire Temple is now a ruin. Dimensions given on the plate are established from analogies. The base is not the Attic, but the Ionic, with a plinth which, in order to be better seen, rises high and protects the fine members from damage. In comparison with the foregoing the scale of the column is very large, the capital smaller, and the luxurious development and vigor are missing. A frieze has been added to the entablature according to repeated restorations, although in all probability none was ever there.

Vom viersäuligen jonischen Tempel
am Ilissus zu Athen.

Vom viersäuligen Porticus des
Tempels der Minerva Polias
am Erechtheum zu Athen.

Vom Tempel der Minerva Polias
zu Priene.



J. M. Marché del. 1835

Partes 30 20 10 0

F. Berger sc.

PLATE 31.

FROM THE TEMPLE ON THE ILISSUS NEAR ATHENS.

It is doubtful whether this Temple was built to Demeter, Artemis, or another god. It is known only by the drawings of Stuart (Stuart & Revett, *Antiquities of Athens*, 1787). Since their time it has entirely disappeared, so that even nothing of its foundation walls remains. The material, of Pentelic marble, was probably used for other buildings, or burnt into lime, as was the material of many other buildings under Turkish rule. The Temple was a four columned Amphiprostyle.

Plate 31 shows the details of the columns and entablature of the exterior. The leaf-wave or cymatium of the heavy architrave, the frieze, and the cornice were presumably finished with leafwork, painted in color. This older way of indicating ornament was also used in Attica in later times. The figures of the frieze were restored by Stuart. He found no remains, but only traces of such a frieze on the building. The cyma was in place on the pediment and is here carried on the long side, although such was not actually the case.

vom Trümpel am Hissus bei Athen.

7.34



PLATE 32.
FROM THE TEMPLE ON THE ILISSUS NEAR ATHENS.
Continued.

Plate 32 shows the plan and elevation of the corner capital and the base and capital of the antæ. The base of the antæ is somewhat lower than the column base and is a very successful modification of the ancient Ionic base from the Juno Temple at Samos (Plate 40, Fig. 10). The capital of the antæ was finished with painted ornament and on the neck was a painted flower band. The architrave was divided into three facias on the inner side and in the pronaos where it rested in the wall it had at its top a leaf-wave and thereunder a painted floral band. Stuart found of the latter traces of the painting shown at A and called by the Greeks anthemion.

In form, size and style the Temple on Ilissus is related to Nike Apteros, at the Propylæ of Athens.

The method shown on this plate of drawing the volute is somewhat improved upon by that shown on Plate 36.

As the Ionic capital had two different sides, it would have appeared unsymmetrical on the corner of a building and this drawback was obviated by the Grecian masters with a diagonal volute as shown on our plate and this arrangement was continually followed in Peripteral buildings, as shown by numerous examples.

L' 32



PLATE 33.
FROM THE NORTHERN PORTICO OF THE TEMPLE OF MINERVA POLIAS
AT ATHENS.

When one steps through the Propylæ on the Acropolis at Athens he has towards the east, on the right hand, the Parthenon, on the left the Erechtheum. The latter was erected of Pentellic marble, on the site of an older Temple destroyed by the Persians. The newer structure, belonging to the Periclean times, seems to have been partly built during the Peloponnesian war and finished in the year 407 B. C. This new Erechtheum, the remains of which still exist, was built as a double or more correctly three-chambered Temple of the form Prostyle, on ground and foundations of different levels. A six-columned portico facing the east lead as a pronaos into the cella of Athena Polias. On the north was a portico 10 ft. lower, with four columns on the northern front and two with antæ on the two sides. This portico lead into a high narrow vestibule on the west side of the building, opening into the central chamber, and was dedicated to Poseidon Erechtheus. A second door lead from the above portico to the Temple court yard at the west side of the building, where was found the olive tree of Athena. A third doorway lead by means of a small stairway to the southern portico, which was at the same level as the plateau, and the roof of which was supported by six caryatides.

Plate 33 shows the column, entablature, and antæ of the northern portico. (It will be noticed that the projection of the entablature from the column axis is given $4\frac{1}{2}$ parts too much, an error in Stuart & Revett's work). The $9\frac{1}{2}$ diameters high column has an attic base on a common plinth. The upper ending of the fillets, between the 24 flutes, is here as an only occurrence of its kind, finished with a bead, which continues a short distance down the vertical. The flower band or anthemion belonging to the wall, as well as to the antæ, is placed on the neck of the column, and thereby harmony is effected.

The ornamentation on the entablature and that on the capitals and bases is of the finest sculpture, while on earlier monuments we find it carried out mostly in painting. Of the richest type is the capital of the column, with its strong double volutes; its plaited torus, the earliest example known; the encircling enriched echinus, and the profusely decorated neck. In the side view of the capital the double ring volutes are connected by a roll or bolster enwrapped with eight strings of pearl beading, which appear to hold it in place. The channels of the volutes showed colors of blue and on the fillets of the same were traces of red. Holes at different places indicate a bronze decoration. The capital of the antæ is also the Attic Ionic which we have already noticed at Ilissus, only that instead of painted flower mouldings we here have them carved.

The architrave of three fascias is separated from the frieze by a small leaf-moulding and Doric cymatium. The frieze plates consist of bluish gray Eleusinian marble, which forms the background for relief figures of white marble. A simple corona supports the cyma, the latter being no more in existence but is restored in our plate. A more pleasing restoration is shown on Plate 30. The roof over this portico consisted of five stone beams which rested on the architrave of the portico and the rear wall and had six spaces between. On these beams rested the ceiling. The pediment forms an angle of about 150° .

T. 39.



PLATE 34.

FROM THE NORTHERN PORTICO OF THE TEMPLE OF MINERVA POLIAS AT ATHENS.

Plate 34 gives a plan and end view of a corner capital and at a larger scale a half elevation of the front of a middle capital of the northern portico. The method of drawing the volute shown on this plate is by Davile. The method shown on Plate 36 is more to be recommended.

T 34



PLATE 35.

THE TEMPLE OF MINERVA POLIAS AND THE PORTICO OF THE ÉRECTHEUM AT ATHENS.

On the west side of the Temple there is no portico, but only a recall of the one on the east front, in the form of four half columns between antæ. Plate 35 shows at the upper part the capital and one of the bases of these half columns, which stand elevated on a stylobate. The columns are 1 ft. 11. 7 inches (English) in diameter. The bases show slight differences from the others of the building. The three middle spaces were originally open, but later, windows were built in and filled with grille work. These windows are no more in existence, but are only preserved in Stuart's (Stuart & Revett) drawings. One of them we show on Plate 93. The lower half of Plate 35 contains details of the columns and antæ of the six columned east portico of the Erectheum.

The entablature surrounding this portico and the main building has the same relation of members and practically the same details as that of the north portico. The pediment forms an angle of 155 degrees. The columns stand on a podium of three plinths. The floor of this portico is about 9 ft. 10 inches (English) higher than the north portico.

The columns are 2 ft. 3.8 inches in diameter and 6 ft. 11.2 inches on centers. We mention this because the French measurements on our Normandian plate are not as correct as those given by Stuart & Revett. The capital of the antæ is given on Plate 36 at larger scale.

IONISCHE BASEN UND CAPITAELE VON DER WESTSEITE des Tempels der Minerva Polias und der Portike des Erechtheums zu Athen

T. 35

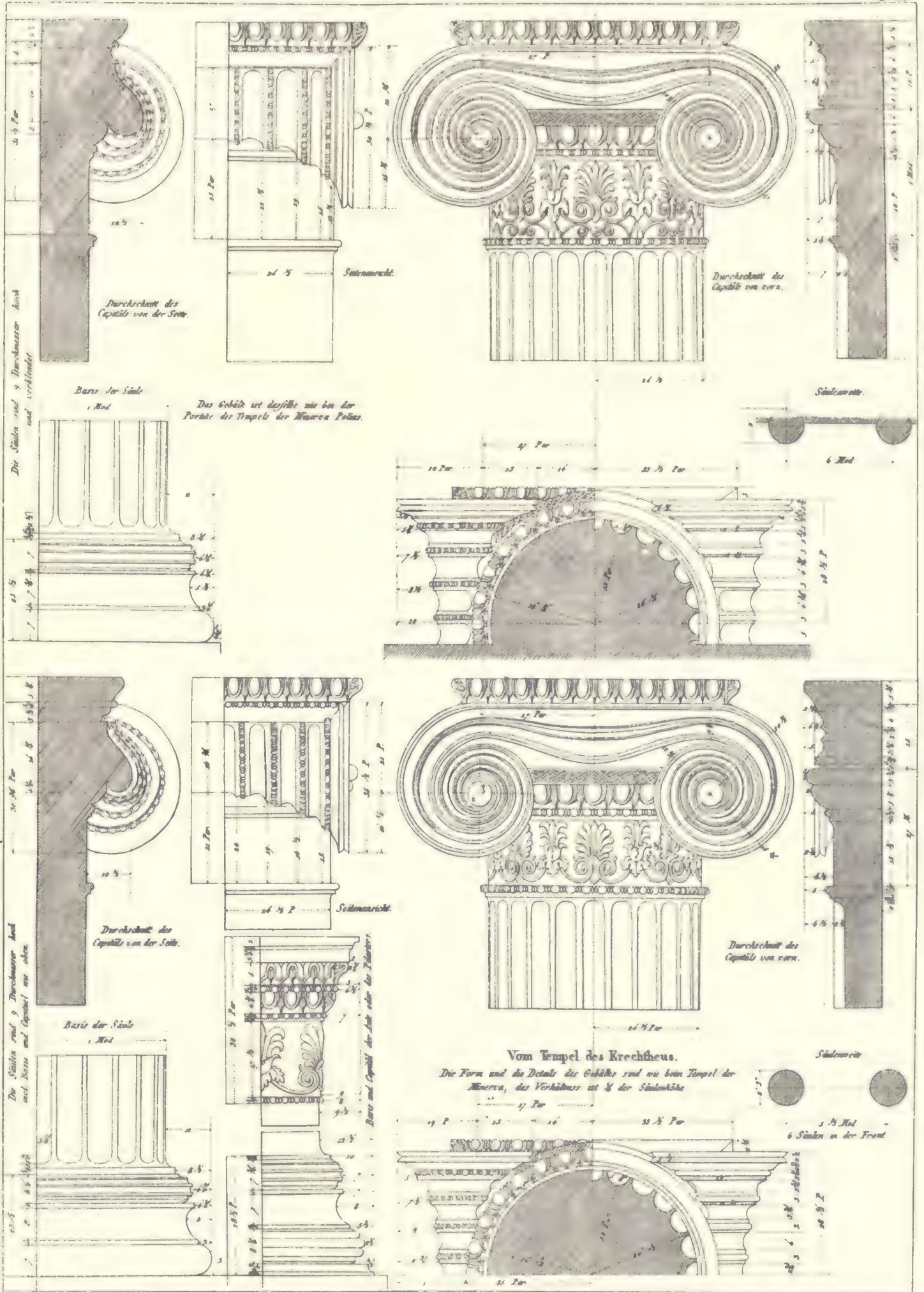


PLATE 36.

TEMPLE OF THE ERECTHEUM AT ATHENS.

Plate 36 shows, Figs. 1 to 4, details of the doorway at the northern portico of the Erechtheum. This doorway is shown complete on plate 92. At the time of the visit of Stuart & Revett, it was not accessible as the spaces between the columns of the northern portico were walled in and our first knowledge of it was through Inwood (London, 1827). Fig. 1 is the cyma, Fig. 2 is the leaf-wave or egg moulding under the corona, Fig. 3 the Lesbian wave of the architrave, and Fig. 4 a rosette of the latter.

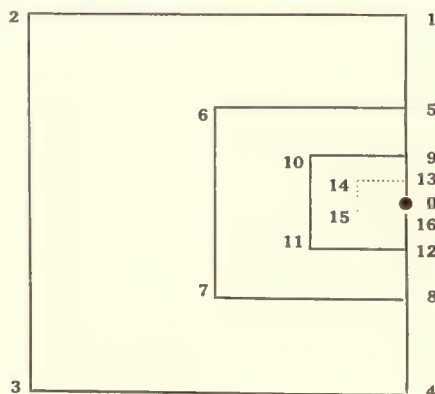
Fig. 5, drawn from a model of the original, gives a larger and more correct representation of the antæ capitals of the 6 columned portico of the Erechtheum, and also the capital of the wall. At the right is shown by dotted lines a method for drawing the ornament. For the drawing of the eggs a method is also given on Plate 58. The section at Fig. 5 is through the antæ capital. At A, B, C and D are shown other sections through the ornament.

Fig. 6, A, B and C shows a method, invented by Mauch, of drawing the volute of the Ionic capital of the Erechtheum:

The dimension of the volute is 7 times the diameter of the eye in height and 6 times in width. The center of the eye is 4 of its diameters from the upper edge and $3\frac{3}{4}$ from the outer edge of the volute. The volute line after circling around three times should be drawn so that it will be tangent to the eye at its highest point. The vertical diameter of the eye is to be divided into 16 parts, of which the central two, four, and eight form, respectively, one side of three squares, and are so drawn that their inner sides coincide with the vertical diameter of the eye. (See diagram below.) The horizontal diameter bisect the squares, and the corners 1 to 12 are the center points for the curves a b, b c, etc., to m n. (The spiral is continued as an imaginary line, shown dotted, from n through p q and r to s, the centers being 13, 14, 15 and 16 at the corners of an inner square of one part of the eye.) The radius of the finish of the spiral at n from the center of the eye o is the same as the radius of the eye or 8 parts; at m, 9 parts, at l, 11; at k, 13; at i, 15; at h, 18; at g, 22; at f, 26; at e, 30; at d, 36; at c, 44; at b, 52; and at a, 60, which plus 4 brings us to the center of the eye o. Therefrom it will be seen that a e=e o; b f=f o, etc., and that the width of each winding of the volute is half the width of the one lying outside of same or vice versa. Fig. 6, C shows the volute developed. At the end of this wedge the profile is shown and from there the lines concentric with both sides converge at the point o. The channel in the central member is an exception to this; it converges in the first three-quarter winding at which point the central member changes into a bead. The length of the wedge a o is to be taken optionally as a diagram. After the single volute line a b c to n is described at A and developed at C, the intermediate members of a spiral are easily attained and the centers lie proportional between the centers of the main curves of the spiral; so, the centers of the intermediate spirals of the 9th quarter spiral at B between i k and n p, described from points 9 and 13, lie between these points.

A comparison of this volute with a model of a corner column capital of the Erechtheum shows only unimportant differences, the eye of the original is a little more than 1-7 the height of the volute, in consequence the periphery or circumference becomes tangent at the eleventh quadrant, instead of the twelfth. The larger eye of the original is shown by dotted line, the center being at 12.

This method serves also for the drawing of the volute on the capital of Minerva Polias but not so well for the capital of the Ilissus Temple at Athens, because the latter has a very large eye, about 1-5 the height of the volute. The volute line on later, though less exemplary monuments, coincide more nearly with the volute line given by Vitruvius, which is given on Plates 51 and 52 under the names of Palladio, Vignola and Goldmann.



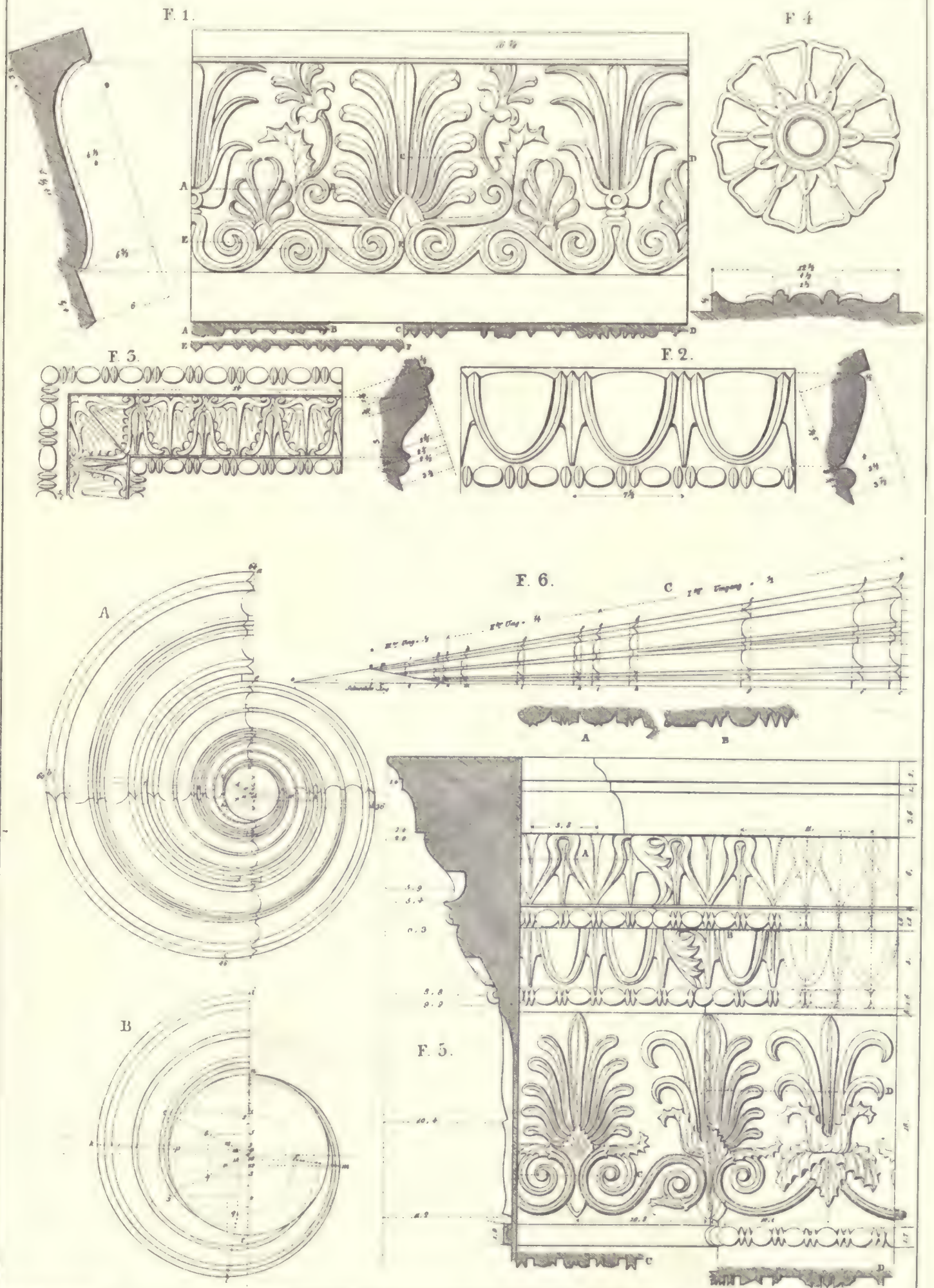


PLATE 37.

THE INTERIOR OF THE TEMPLE OF APOLLO AT BASSÆ NEAR PHIGALIA.

The exterior order of this Temple is already given on Plate 11.

In the cella on the face of five wall projections or piers at the sides, were placed the same number of half Ionic columns. The last pier at each side was on the diagonal, and center-way between and opposite the entrance stood a Corinthian column (Plate 59) which separated the space behind from the cella.

On Plate 37 a part plan is shown at Fig. 10, the dotted line A. B. being the long axis of the cella. These eleven columns carried in connection with the wall over the entrance an entablature enclosing the light area of the cella, which as at other Temples had no roof and was therefore Hypæthral. The scant height of the interior allowed of but one column, whereas at other Temples of greater dimension superimposed columns occurred. Instead of the heavier Doric, the architect (Ictinus) selected here the Ionic style, which, at that time on the small Temple on Ilissus (Olympiad 82) and on the interior of the Propylæ at Athens (Olympiad 85), was in its ascendancy and shortly thereafter at the Erechtheum (Olympiad 92) reached its culmination.

Fig. 1 shows the entablature and column capital. The columns stand on a slight step which surrounds the floor on three sides of the open part of the cella. The very peculiar neither Attic nor Ionic base, through its strong projection, gives the columns a substantial foundation, and forms with its plain profile a pleasing connection with the floor. Fig. 8 is a section of the foot of the column at a larger scale. The column is of exceptionally strong taper with a gentle entasis, and with shallow flutes and narrow fillets between. Fig. 7 shows a half plan of same with the pier in connection therewith. The capital, considering the steep angle of vision at which it was seen from below, and the strong lighting, is formed with great ingenuity. It has no roll or bolster on the sides, but a repetition of the front, which is only carried out in half.* Fig. 3 shows a top view of same. Fig. 5 is a horizontal section of the volute and Fig. 4 a vertical section. The eyes were inserted. The crowning connection between the two volutes as viewed from below was, through its forward curvature at the corners, again brought to a straight line and then came in proper alignment with the lower edge of the architrave. This capital seems to have been originated from the corner capitals with corner volutes of the heretofore mentioned two earlier examples. It lends itself admirably to peristyles which surround a court where the capitals with bolsters on the ends are not suitable. In the corners of the volutes adjacent to the echinus were left blocks on which presumably metal decoration may have been fastened. We have, therefore, shown a suggestion on our plate as well as a central honeysuckle ornament as suggested by the Corinthian capital on Plate 59. By this decoration it is possible to give the two half sides of the capital a suitable termination. The echinus is without the usual egg ornamentation. The members thereunder are given at Fig. 6. The abacus is not in existence in its original form; its sides were presumably concave. The cutting out of the corners leads us to presume that a decoration probably of metal was applied, though no motive is in existence for its restoration.

The height of the column is not to be ascertained, as not a single capital was found in its place, though from the height of the stone blocks in the cella wall we presume that it was about 19 feet, which with the lower diameter of 2 ft. 1.9 inches would make $17\frac{1}{2}$ modules.

The entablature (Fig. 1) is similar to that of the small Temple on Ilissus, though it is much lighter in relation to the column. The architrave is lower and the frieze higher than was found in any example of ancient times. This variation occurred on account of the sculpture wherewith the entire frieze of the cella was decorated in relief. It represents, in Pentelic like marble, by an unknown master, the battle of the Greeks with the Centaures and Amazons, and the execution is wonderful. These works of art are now in the British museum. In the short piece of frieze, Fig. 1, is drawn one of the 23 marble tablets, to give an approximate idea of the richness of this work of art, which, with a height of 2 ft. $1\frac{1}{2}$ inches, has a total length of 101 ft. 2 inches. According to Baron von Stackelberg, the warrior with the ax is Theseus who has just felled the Amazon queen Antiope.

The cornice has very little projection in order not to obstruct the light from above, and consists only of a corona and a cymatium. Fig. 2 gives a section of the entablature. The architrave is, on the back side, much lower than on the front. The niche-like spaces between the columns answered presumably for the placing of statues.

*Other authorities indicate the side of this capital as complete.—Ed.

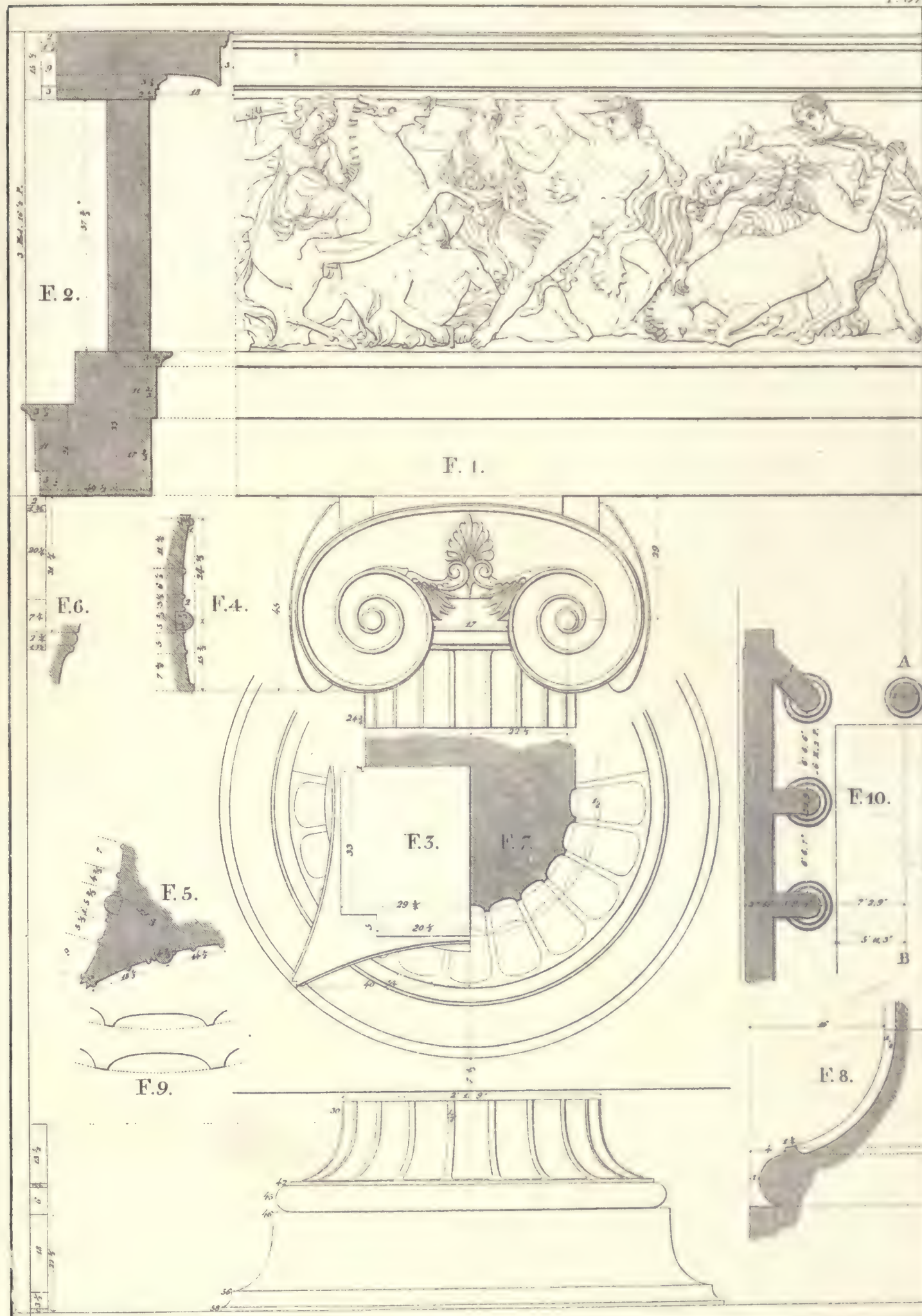


PLATE 38.

FROM THE INTERIOR OF THE PROPYLÆ AT ELEUSIS.

On Plate 12, in connection with the exterior order, was given a portion of the plan of the outer large forehall, the roof of which was supported by six Ionic columns in two rows back of the two central columns of the Doric prostyle. These two rows of three columns each, divided the forehall into three passages.

Fig. 1 shows an elevation of a column, and the front of a capital. Fig. 2 is half of the end, or bolster view, and Figs. 8 and 9 show the plan of the capital. Figs. 3 and 4 are sections through the end and through the front of the capital. At Fig. 5 is shown the detail of the band on the bolster.

The volute can be drawn by Vitruvius' method (see Plate 41). The diameter of the eye is here $\frac{2}{3}$ of 20 parts or $4\frac{4}{9}$ parts. This capital shows excellent proportions; the strong egg and dart echinus remains visible from below around the entire neck which gives an elegant effect.

The base of the column is of a fine Attic form and has a round plinth with a slight spread at the bottom. The height of the columns has not been ascertained, but if they had the same proportions as those at Athens they must have been about 9.93 meters or 19 modules 4 parts high.

The large expanse of the ceiling of the forehall (59 feet wide and $44\frac{1}{2}$ feet deep), required two beams or architraves for the support of the ceiling beams and the ends of the former rested on the inner encircling architrave of the Doric prostyle and they were supported at intervals on the inside by the Ionic columns. These beams were actually the architraves of the Ionic columns, the profile being indicated on Plate 12 by a dotted line at A, Fig. 1, and is represented on Plate 38 by the same letter.

The ceiling was divided into three large fields over the passages, and across the same spanned the smaller ceiling beams which are indicated at P. Those of the side passages were 5.72 meters long in the clear. On these beams rested the ceiling slabs, shown by O, which were decorated and at the same time lightened in weight by the square panels or coffers.

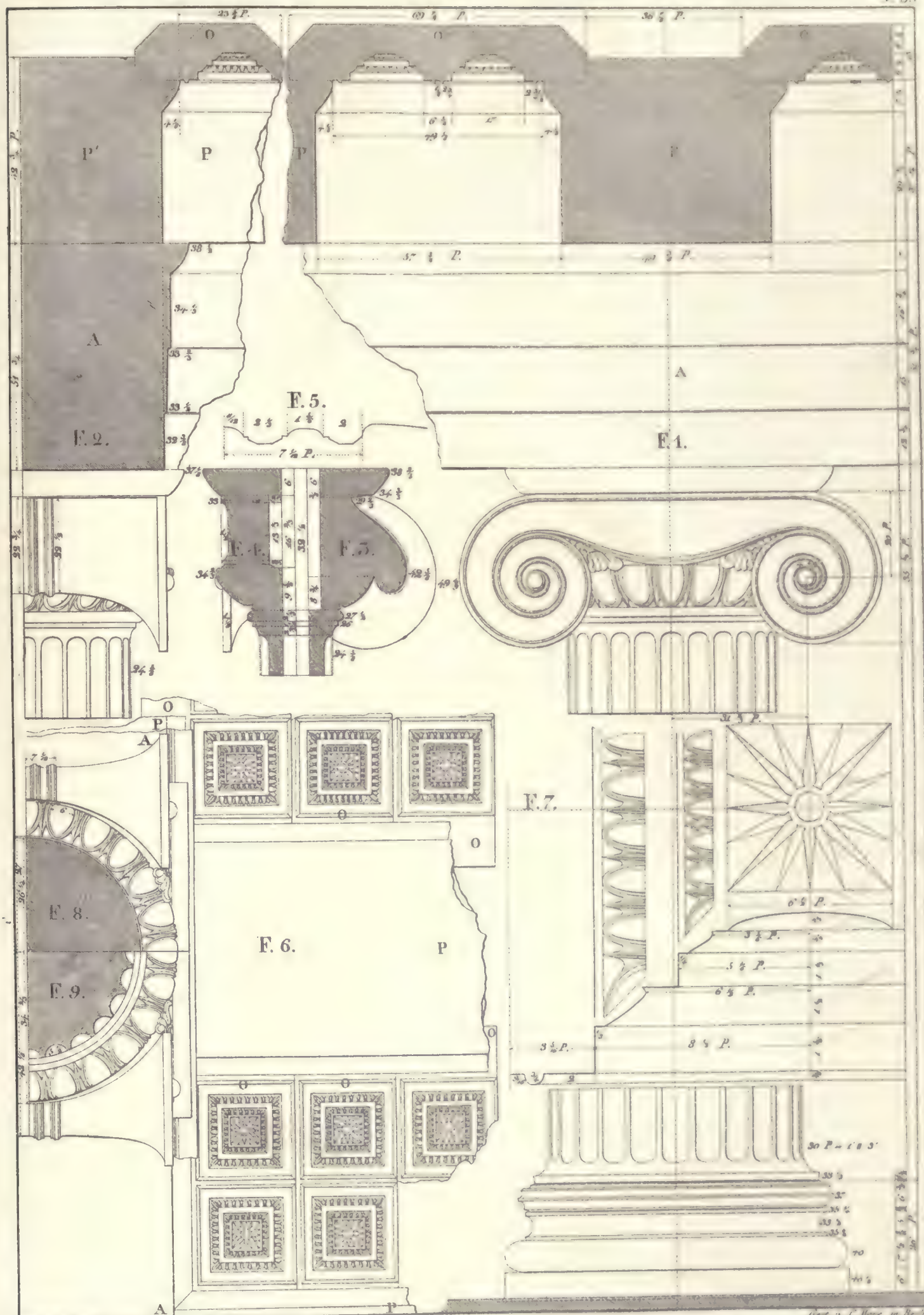
Figs. 1 and 2 show sections of the ceiling slabs, and at Fig. 6 in connection with the plan of the capital is shown also in plan a part of the ceiling. Fig. 7 is a portion of a coffer at a larger scale, the plain background of the center ornament having been decorated with color. On some of the fragments green paint has been found in a well preserved state.

The material of all parts of this structure, even the roof tile, was Pentelic marble. For the knowledge of this monument we are indebted to the efforts of the architects of the English Society of Dilettanti, who succeeded in reconstructing the whole from the fragments discovered. Later examinations of the Athenian Propylæ, from which that at Eleusis was copied, have not brought as satisfactory results as regards the ceiling.

JONISCHE ORDNUNG,
im Inneren der Propyläen zu Eleusis.

ORDRE JONIQUE,
au dedans des Propylées à Eleusis.

T. 38



J. M. Rauch del. 1830

Parten 30 20 10 0 4 3 Modul

THE ARCHITECTURAL REPRINT

ANTIQUE & CLASSICAL ARCHITECTURE

VOLUME X. PLATE 66.

PLATE 39.
FROM THE VESTIBULE AT ELEUSIS.

The different parts of the order represented on this plate were found under the ruins of the Vestibule, or so-called Lesser Propylæ in Eleusis, and presumably belonged to the enclosure in front of this Vestibule (see Plate 58). The structure originated in the middle of the first century B. C., at least it was entirely rebuilt by the Roman, Appius Claudius Pulcher, about this time on the site of an older building.

The capitals on one side were left rough, probably because the columns stood in a detached relation against the enclosure wall; also the architrave was left unfinished on the inner side. The entablature, Fig. 1, no longer belongs to the earlier Athenæan art, but to the Ionic style (see the two following plates). At Fig. 7 is an enlarged section of the cornice with the hollowed out gutter. The capital, with its large volute face, is not so much different from the form of those of the Temple of Ilissus, and the Erectheum. In the entablature we see a greater departure.

At Figs. 3, 1, and 4 are shown, respectively, the plan, front, and end, or bolster views of the capital. At Fig. 5 is shown half of the front of the capital at a larger scale. At the right is the section through the front, and in the volute, shown by dotted line, is the vertical profile of the bolster. The base, Fig. 2, is of good form and stands without plinth on the stylobate. Neither the height nor the spacing of the columns was ascertained. The material was white marble.

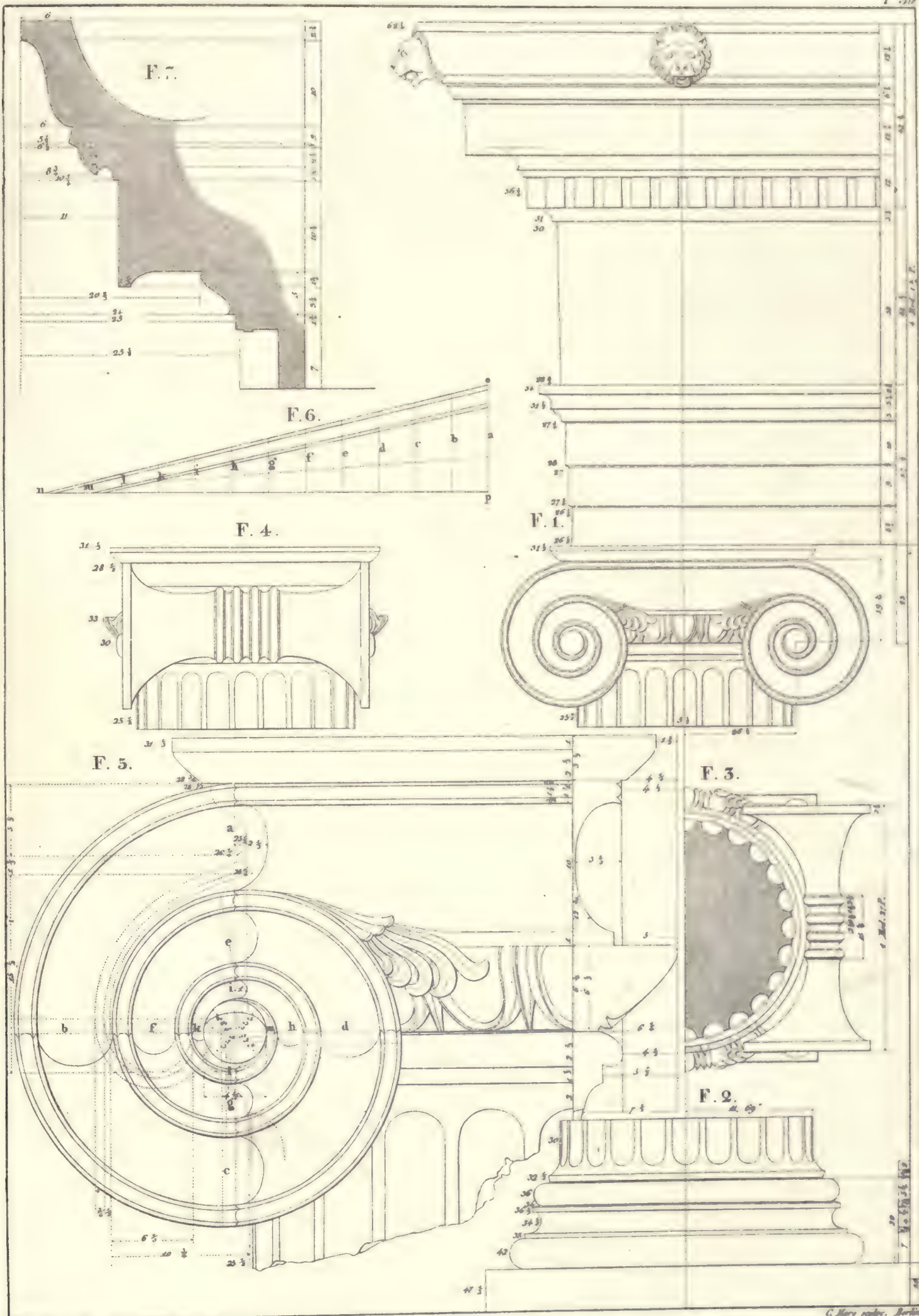
The winding of the volute is indicated at Figs. 5 and 6. The center of the eye is established as shown at Fig. 1. Through the center of the eye of the volute draw two diagonals at 45° with the horizontal and vertical axes. Each half of these diagonals is then divided into five equal parts. The four center points for the first winding of the spiral are three parts from the center; for the second winding, two parts from the center; and for the third winding, one part from the center. The 1st center point lies each time above and inside (of the axis of the eye) the 2d outside, the 3d thereunder, etc. The quarter turn must each time end at a straight line passing through its center and the center of the winding next following, hence the slanting radii e and i between the 4th and 5th and the 8th and 9th quarter windings. Now, if the main volute line is carried to the periphery of the eye, the inner quarter winding from the 12th center will be described with a radius of 6 parts. To establish the width of the fillet and channel of the volute, draw a triangle o n p, Fig. 6, wherein o p = the winding width of the volute at a, Fig. 5; in this triangle draw the lines for all widths, b, c, d to m. Then the width of the fillet at the beginning = $1\frac{3}{4}$ parts at o, the width at the finish between l and m being taken from Fig. 5, where on the original the inner line of the fillet runs against the periphery of the eye; or the width of the fillet at k is half the whole winding width. Then the inner line of the fillet can be drawn on Fig. 6, and by means of the intersections of the lines b, c, d, etc., the different widths of the fillet can be found; the lines inside the fillet are to be drawn concentric with the border lines. The center points of the quarter windings of the inside spiral line lie proportional between the center points of the outer spiral. Thus the center point for the inner quarter winding between a and b lies proportional between the original centers 1 and 5. At a larger scale these points can be established by construction, but at a small scale by trial.

The depth of the channels can also be found from Fig. 6. The depth of $2\frac{2}{3}$ parts at the beginning is laid off on a, and also the depth of one part, after two windings, is laid off on i, the two connected by the dotted line, the intersection of which with the verticals a, b, c, etc., gives the depth of the channel at any point,

JONISCHE ORDNUNG,
unter den Ruinen von Eleusis gefunden.

ORDRE JONIQUE,
trouvè sous les Ruines d'Eleusis.

T 30



J. N. Mauch del. 1830.

C. More sculp. Berlin.

Parten

50. 30. 20. 0. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

THE ARCHITECTURAL REPRINT

VOLUME X. PLATE 67.

ANDREW S. GRAHAM CO. PHOTO LITHOGRAPHERS, WASHINGTON, D. C.

PLATE 40.

FROM THE TEMPLE OF MINERVA POLIAS AT PRIENE.

The Temples of Asia Minor destroyed by the Persians were not renewed as soon as were those of Greece, as their restoration falls in the 100th Olympiad and still later. The Temples as indicated by the ruins were mostly in the Ionic style. How much similarity they had to those of the earlier destroyed monuments we can not ascertain as of the latter, excepting a few at Samos, no remains exist. The base varies from the Ionic to the Attic, the capital is low with small volutes, and usually has bolsters. The entablature with a weak architrave and a low frieze has, as a rule, under the corona, the Persian dentil course. The most characteristic feature is the arrangement of the antæ capital with a sofa-like front and thin bolsters on the ends. There are also free standing pillars with the same kind of capitals. In the remains of Persian architecture types are found after which these capitals with modifications seem to have been formed in the spirit of Grecian art.

On Plate 40 is represented the Temple of Minerva Polias at Priene, which presents to us in all its parts the finest example of Asiatic-Ionic architecture. It was a six-columned Peripteral, with 11 columns on the side, and stood on a terrace on the south side of the Mycale hills, being built by Pytheus, of white marble from these hills, and dedicated by Alexander, 335 B. C. From the remaining ruins the height of the columns could not be ascertained to a certainty; they may have been at least 19 modules.

Fig. 8. is a portion of the plan. The corner capitals are somewhat of an exception to those of older examples at Athens. Two complete volutes form the inner angle, the bolsters spreading out at this point and the abacus taking the same form, as shown at the plan of the capital, Fig. 3. At Fig. 1 is the front view and at Fig. 2 is the side, a corner volute being shown on the former and an inner angle volute on the latter. At Fig. 4 are shown sections of the front and end.

Fig. 5 shows the scheme whereby the volute line, which has four complete turns, can be constructed. The portions of two 45° diagonals contained in a regular hexagon (which is drawn in the eye of the volute), are divided into six equal parts, and the part nearest the center is again divided into two parts, which give the points 1, 2, 3, etc., to 16, from which the quarter windings I, II, III, etc., to XVI (Fig. 1), can be drawn. The remainder of the construction is similar to that described on the former plate.

The eye of the volute is sunken, and probably was decorated with gold or precious stones.

The relations of the members of the entablature (Fig. 1) and the decorations are, throughout, exemplary. Over Fig. 7 is given an elevation and section of the pediment cornice. The cyma is decorated differently from that on the long side and the dentils are omitted. At Fig. 7 is given a section of the corona as it is carried across under the tympanum. The soffit of the architrave has a panel between the capitals as is shown on the section at Fig. 2. The inner side of the architrave has a different profile from the outer and is also lower. On this was placed the ceiling, consisting of a single row of coffers, which were separated by beams shown at P, one being located at each column. The width of the soffit of these beams was $\frac{3}{4}$ the lower diameter of the column, and the soffit was decorated with a panel similar to that in the main architrave shown at Fig. 2. The coffer is shown in half at C. This line indicates also the center between the column axes.

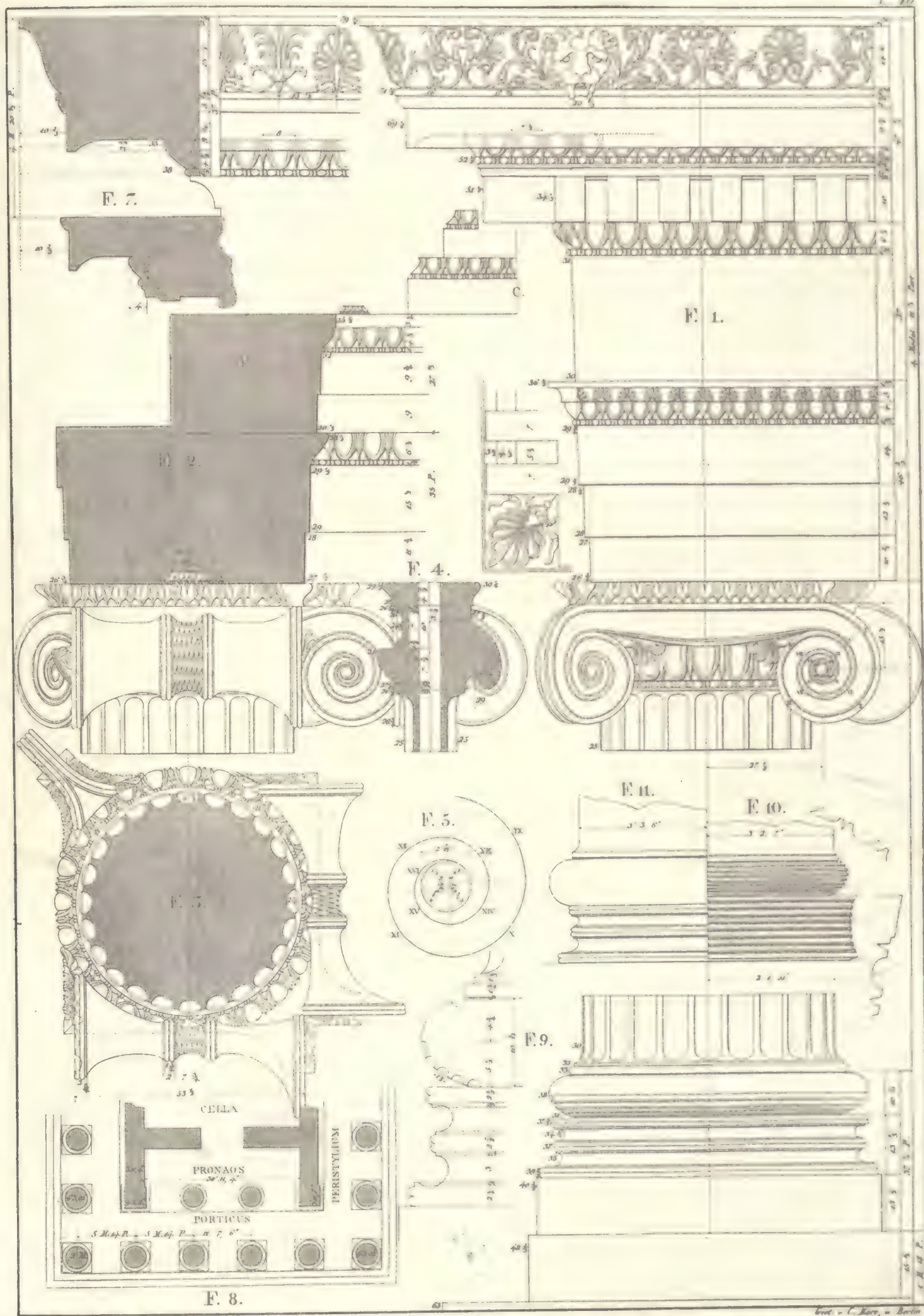
The base, Fig. 9, is in good relation with the elegant character of the other parts of this order; it belongs to a rare style occurring only in the Ionic, and shows at the same time the oldest example of a base with a four-cornered plinth, which the architect probably used to protect the thin astragals resting thereon.

On this plate are also shown for comparison, at Figs. 10 and 11, the best examples of this style of column base, which are taken from different monuments. In the base from the Temple of Apollo Didymæus, Fig. 11, the beads or astragals do not project beyond the torus, which would have been better also in the Priene example, as then the ornamented channels on the lower part of the torus would have been visible to the observer from below. A very ancient base of the latter style (Fig. 10) is found in the remains of the Temple Hera at Samos, which was burned by the Persians. The channeling of the torus and the scotia is given at a larger scale at the right.

JONISCHE ORDNUNG,
vom Tempel der Minerva Polias zu Priene.

ORDRE JONIQUE,
du Temple de Minerve Poliade à Prienne.

T. 10



J. M. Hauch del. 1881

Partes

30. 20. 10. 0. 1. 2. 3. Modul

Inv. v. C. Karc. u. Berlin

PLATE 41.
FROM THE PROPYLÆ AT PRIENÉ.

This Propylæ, in the style Prostyle, like that at Athens and Eleusis, leads through the peribolos, or court wall, to the holy court of the heretofore described Temple of Minerva Polias. At Fig. 11 is a half plan of the Propylæ. O. W. indicates the center line and M. the peribolos. Four columns stood at each front, and the ceiling of the outer or eastern fore-hall was supported by six pillars.

The volute line of the capital, Fig. 1, is constructed after the method of Vitruvius. The height from the beginning of the volute line to the center of the eye, equalling 16 parts of a module, is divided into 9 equal parts and 2 of these taken for the diameter of the eye. The scheme is given at Fig. 7; from point 1 is drawn the curve I, from point 2 the curve II, etc., to XII.

Fig. 2 is the end view, which differs from others by having the bolster decorated. At Fig. 6 is shown the decoration of one end, developed. The band on the bolster is given at a larger scale under Fig. 2. At Figs. 3 and 4 are plans of the capital.

Fig. 10 shows the front of one of the pillar capitals; its direction was parallel with the axis of the building, as was also the direction of the wall pilasters. Fig. 9 shows the end view of a pillar capital. The base has a similar profile to the column base.

The entablature, Fig. 1, is not as elegant as that of the Temple itself, neither are the members of the pediment cornices at Fig. 8.

The erection of this Propylæ occurred probably after the erection of the Temple.

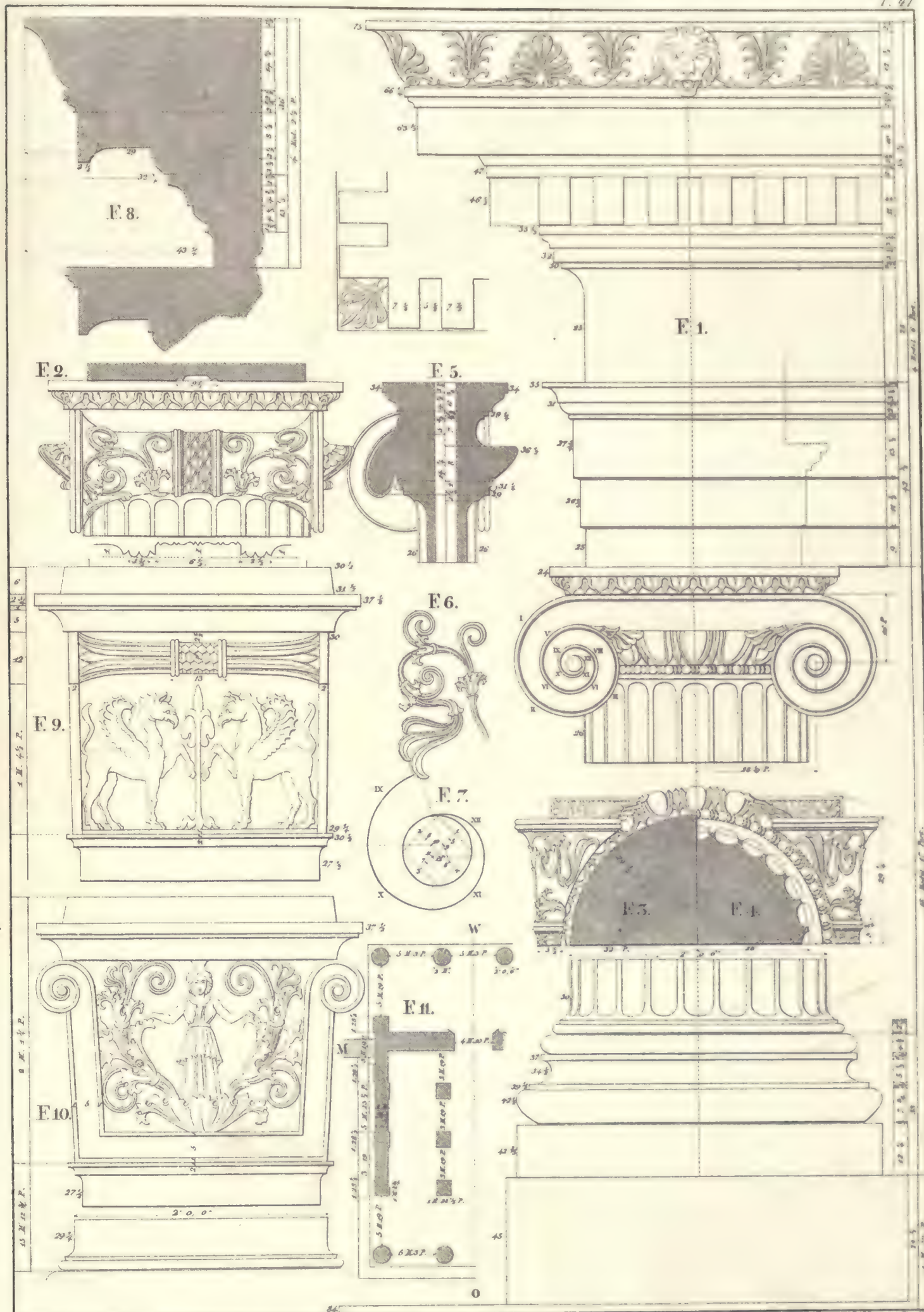


PLATE 42.

GREEK IONIC CAPITALS.

From the Temple of Apollo Didymæus at Miletus:

The old Temple of Apollo Didymæus, on the forehill Poseidon, which, after that of Apollo at Delphi, had the most noted oracle in Greece, was destroyed by Xerxes 479 B. C. The time of the rebuilding of the Temple is not exactly given. Old writers refer to the same as most extraordinary; Strabo calls it the largest of all, and because of its large size, was without a roof. Pausanias describes it as unfinished and as one of the wonders of Ionia. Vitruvius includes it among the four principal Temples that elevated the architects to the pinnacle of fame. The colossal and beautiful ruins of the new Temple erected after the destruction by the Persians, confirm these statements. It was Dipteral Hypæthral with 10 and 21 columns, 164 feet 5 inches wide, and $303\frac{1}{2}$ feet long. The columns were 6 feet 3.2 inches in diameter, 63 feet 1.6 inches high, and 17 feet 4.8 inches on centers. Two columns still standing support a piece of architrave; a third column is not completely fluted; all other parts of this highly praised monument are a mass of ruins. We are indebted to the efforts of the British Dilettanti Society for the exact measurements of the discovered remains. The column capital is shown at the top of Plate 42, in front and end views, section and plan. The front connection of the volute faces is without the elastic drop, and in addition to this is also partly hidden by the strongly projecting echinus. The volute lines are drawn after the method of Vitruvius. The base of a corner column, which was four inches thicker than the intermediate ones, is given at Fig. 11, Plate 40. The height of a corner column is therefore $19\frac{1}{4}$ modules, while the proportions of the others are somewhat more slender. The wide expanse of the 10-columned pediment front was probably established by the architect to make the columns appear comparatively higher, so that the front might not appear cramped. The columns are also closely spaced, being $5\frac{1}{2}$ modules on centers, but still the architrave appears extremely low, and probably for this reason was given only two fasciæ; it is shown on Plate 43, Fig. 3. Of the cornice no parts were found. The portions of the interior which were discovered will be considered on the following plate.

From the Temple of Minerva Polias at Priene:

The center capital shown on Plate 42 is from the above building and is one of those of the middle columns. The Temple is described at Plate 40.

From the Aqueduct of Hadrian at Athens:

The front connection of the volute of this capital and also the abacus are extremely weak. The volute line or spiral gradually projects as it approaches the eye, and the bolsters are highly ornamented. The whole is of small proportions: the columns with Attic bases are only 19 feet 1.95 inches high and 2 feet 2.35 inches thick. The entablature is, as far as the members are concerned, like that of the arch of Theseus or, really, Hadrian (see Plate 62), only with the exception that the fasciæ of the architrave are vertical while at the arch of Hadrian they slant.

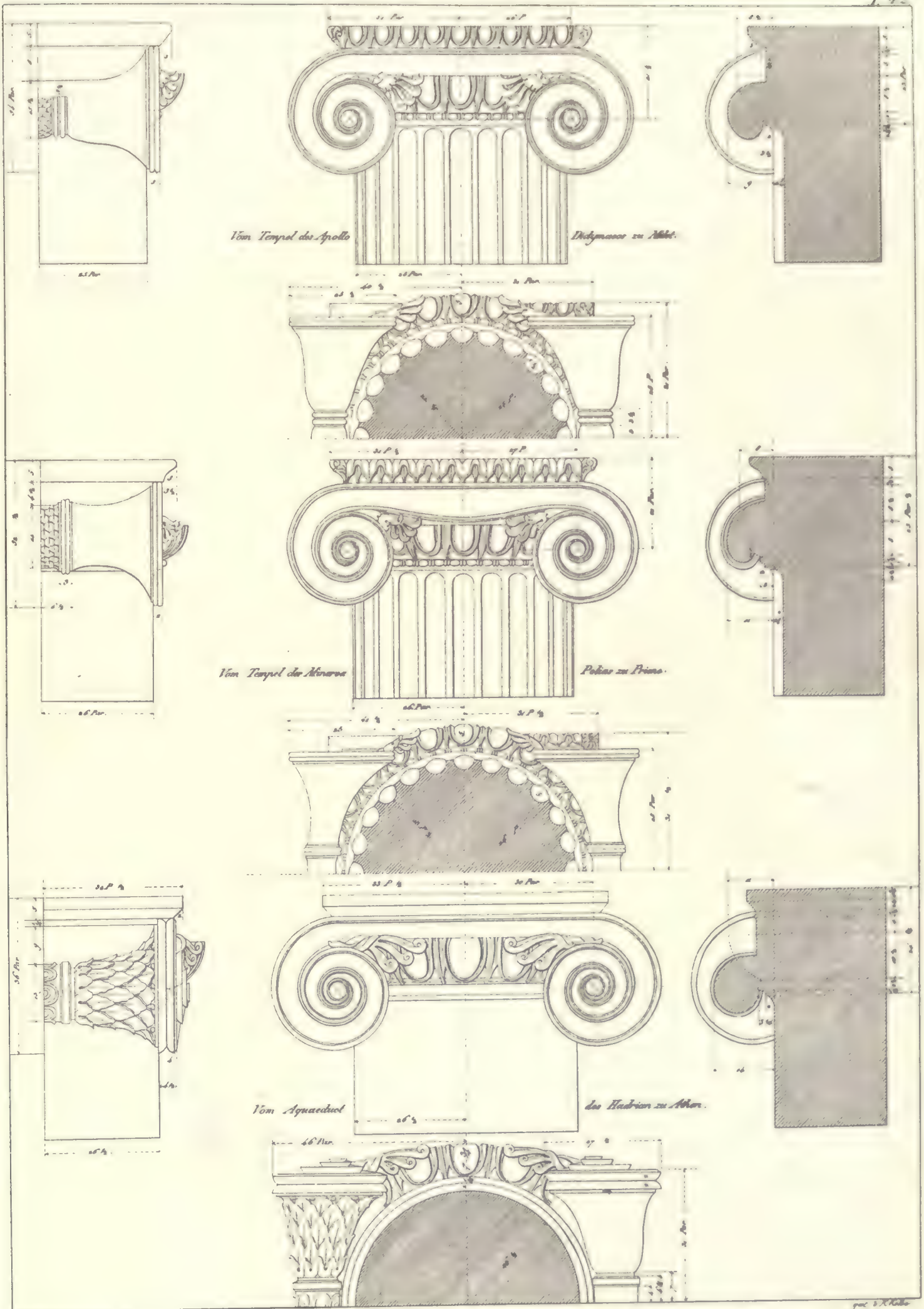


PLATE 43.

FROM THE CELLA OF THE TEMPLE OF APOLLO DIDYMÆUS AT MILETUS.

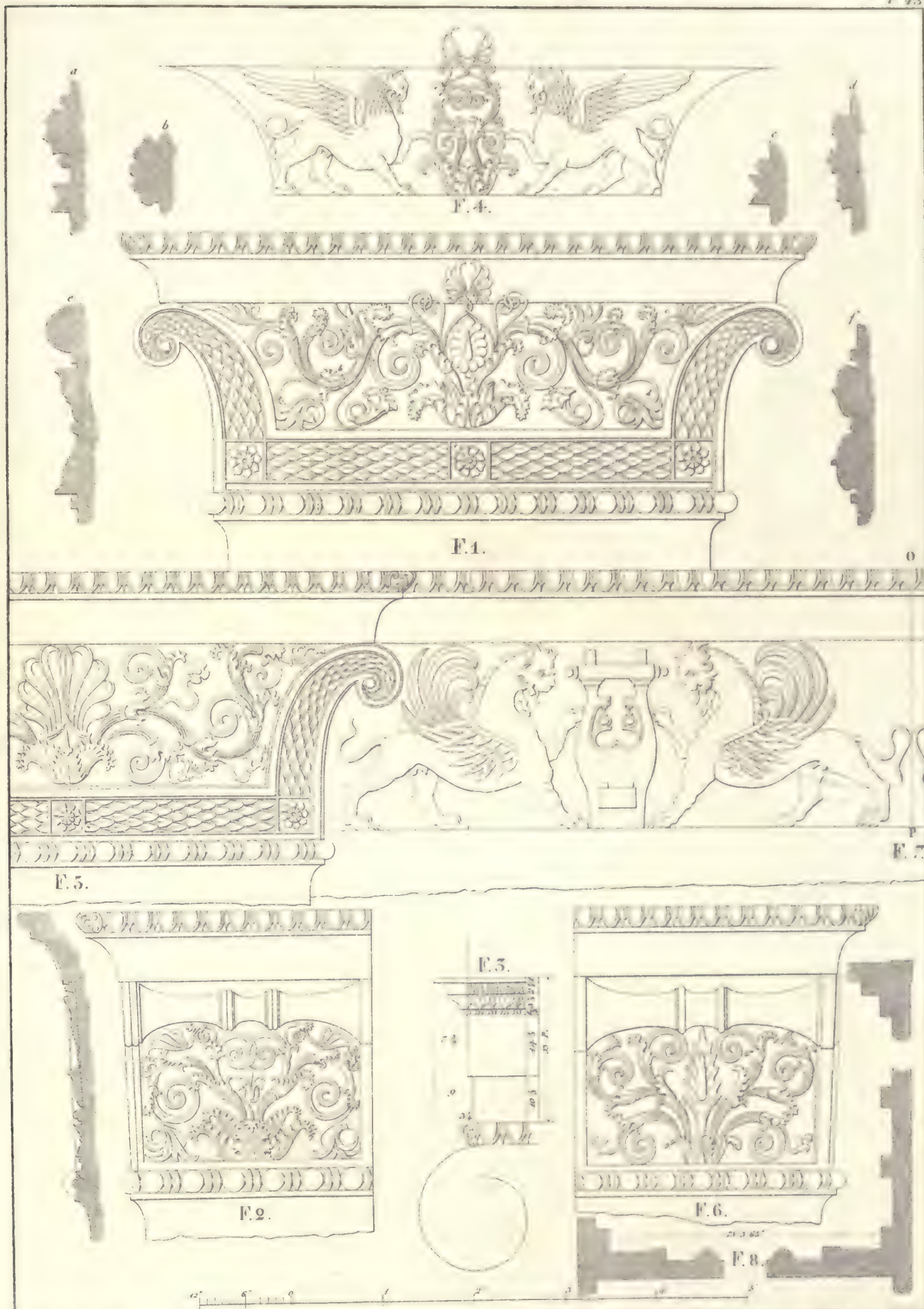
These exquisite and highly interesting capitals belong to the pilasters which stood at the walls surrounding the cella. Fig. 1 shows the front elevation of one of these capitals and Fig. 2 the end view and a section through the center of the front. On each side of Fig. 1 are the sections at a larger scale, taken through ornamental parts of the front as indicated by dotted lines. The large middle field of another capital is ornamented with griffins having eagles heads, Fig. 4. A third capital is yet differently ornamented (see Fig. 5 front and Fig. 6 end view), and so probably were all the other capitals. The space between two was found to have been ornamented with lion-headed griffins guarding the lyre as shown at Fig. 7 where O. P. represents the center line of the panel.

Fig. 8 gives part of the plan of the very spacious cella. On the narrow end was a doorway with a half column on each side, the Corinthian capital of which is shown on Plate 58. The other walls were strengthened and ornamented with strongly projecting pilasters which, with the spaces between, form the subject of this plate. On each long side were ten spaces, therefore eleven pilasters, counting those in the angle.

JONISCHE ORDNUNG,
Pilaster-Kapitäl aus der Cella des Tempels
des Apollo Didymaus bei Milet.

ORDRE JONIQUE,
Chapiteaux des Pilastres de la Cella du Temple
d'Apollon Didymée pres de Milet.

T. 23



J. M. Muehl del. 1831

Geist. v. C. Marc in Berlin

PLATE 44.

FROM THE TEMPLE OF FORTUNA VIRILIS AT ROME.

Of the Roman structures of the Ionic order but few have come to us, and these show an unfamiliarity with the later Grecian style. The columns often stand on a socle-like plinth, the half columns also on a projecting socle or column base. The wall pilasters have no capitals of their own, but have them formed after the column capitals which often have their four sides alike. The base is the so-called Attic with plinth. The entablature has unpleasing, heavy proportions, for the reason that its ornaments are bold. The cornice is relatively large, and under the corona are usually dentils. The cyma is often purely decorative, being seldom used for a gutter. The profiles of the egg and dart, beads, torus, etc., are generally segments of circles by which they lose the fine pleasing character obtained by the free-hand method of the Grecians.

The Temple of Fortuna Virilis represented on Plate 44 is a four-columned Prostyle Pseudo-Peripteral, with a free standing column behind the corner column and a continuation of half columns on the cella wall. Before the portico was an approach with thirteen steps between cheek blocks, which were a continuation of the stylobate. Over the portico the front had a pediment. The material is travertine covered with stucco. The time of the erection occurred near the end of the Republic at the beginning of the last century B. C.

The order of this monument deserves some consideration, though principally as a warning example. We therefore call attention to the following: the crowning cornice of the lower structure is composed of small members below, and very large members above; the cymatium of the corona compresses the latter entirely; the whole cornice is too strong, and the corona as dominating member, is too weak; the crowning member of the architrave is too coarse and large, and the frieze, being a decorated one, is too low, the genii thereon appearing insignificant in comparison with the heart-leaf moulding immediately above; the capital of the column shows corresponding faults, the egg and dart and astragal being excessive, while the front connection and the abacus are weak. We principally desire, with these suggestions, to invite the critic to a comparison of this Temple with the Temple of Minerva Polais shown on Plate 40.

T 44



PLATE 45.

FROM THE THEATRE OF MARCELLUS AT ROME.

Of the two stories which form the exterior of this theatre, the upper consists of semi-circular arches with Ionic half columns resting on a common stylobate which breaks out under the columns, forming a pedestal, the face of which is in line with the metope field of the Doric entablature below. (The Doric order is found on Plate 18.)

Plate 45 gives the details of the Ionic order with the imposts of the arches, which, like those in the Doric story, are without archivolt. At their crown the arches are 2 modules 10 parts from the under surface of the architrave, and the radius is 3 modules 10 parts. The capitals of the columns are strikingly small, especially in comparison with the entablature over them. This entablature is of a greater height than that of the Temple of Fortuna on the preceding plate, and the details of the principal parts and the single members are better arranged and in better keeping with the later Greek examples, and also with those of Vitruvius.

The two stories of this theatre, which was dedicated 80 B. C., show us the oldest example of that combination of arches and columns which has become particularly characteristic of Roman architecture, and has found many followers.

7.5



PLATE 46.
FROM THE BATHS OF DIOCLETIAN AT ROME.

This order is taken from one of the many pilasters of the Baths of Diocletian built 300 A. D.

The pilaster which here supports the entablature stood in the corner of a chamber of the extensive baths, without doubt in connection with other pilasters or columns. The use of an Ionic column capital on a pilaster appears to us in this case as preposterous inasmuch as the bolster cuts into the shaft and the echinus must follow the round at the top and the astragal under must follow a straight line. The shaft would better have received seven flutes instead of five. It is also unfortunate where the shaft connects itself to the wall with a half flute, for here should always be a fillet, and for this reason a pilaster should never project exactly a half, but preferably less, seldom more. The spacing of the flutes will therefore determine the exact projection.

The entablature is considerably different than the two foregoing examples. It is strikingly low and with a swelling frieze, a form for which the Romans, who, in all members of their works admired the swell, often found application.

BASIS, CAPITAL UND GEBÄLK EINES IONISCHEN PILASTERS aus den Thermen des Diocletian, zu Rom.

T. 46

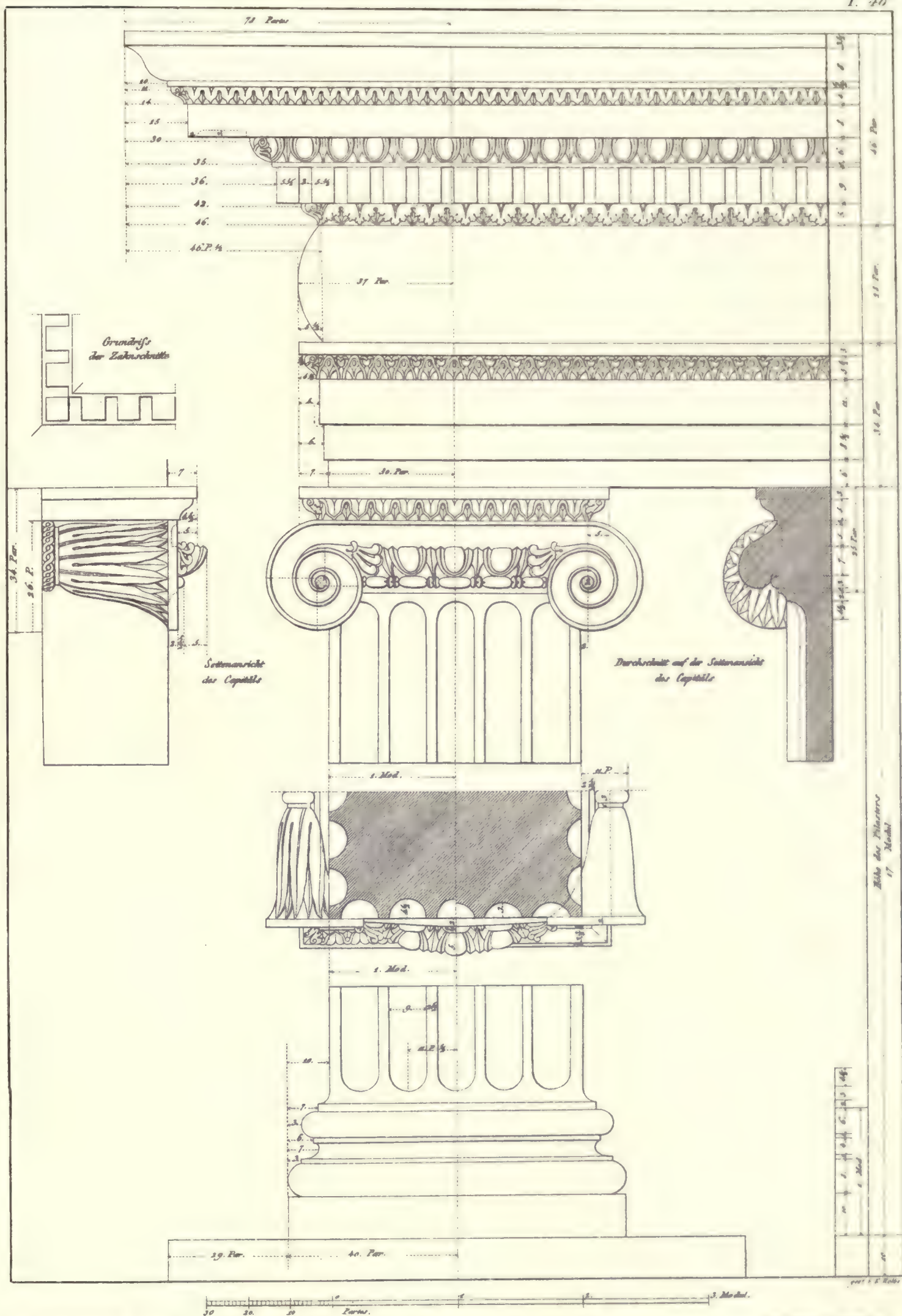


PLATE 47.

IONIC ORDER BY ANDREA PALLADIO.

Leo Baptista Alberti (1398-1472), a Florentine architect, was one of the first who endeavored to apply the forms and combinations of the old monuments to newer structures. He was followed in the sixteenth century by the so-called later masters, who, after studying the Roman works, formed their own rules for the orders. As already done with the Doric and Tuscan orders, we present in the following five plates the Ionic orders of the most celebrated of these masters. By comparing them with the foregoing plates, one will soon recognize them as a sober imitation of Roman architecture, but without a consideration of the scale, be the order 15 feet or 51 feet high, although Vitruvius had already given sound advice which will be considered at Plate 88.

On Plate 47 is represented the Ionic order by Palladio. Of the five orders which he has left us, we find that this example is the most worthy. The entablature is to be considered as an imitation of that shown on Plate 46, but with an unfavorable departure in the cornice. The modillions and members under are too heavy in comparison with the other parts. The decorative connection of the volutes on the column capital is hidden by the excessively projecting egg and dart echinus. The latter also cuts into the volute in an unpleasing manner. The construction of the volute winding is shown on Plate 51. The impost is heavy in comparison with the capital of the column and other principal parts.

POSTAMENT, BASIS, CAPITÄEL UND GEBÄLK DER IONISCHEN ORDNUNG.
 Von Andreas Palladio.

T. 47

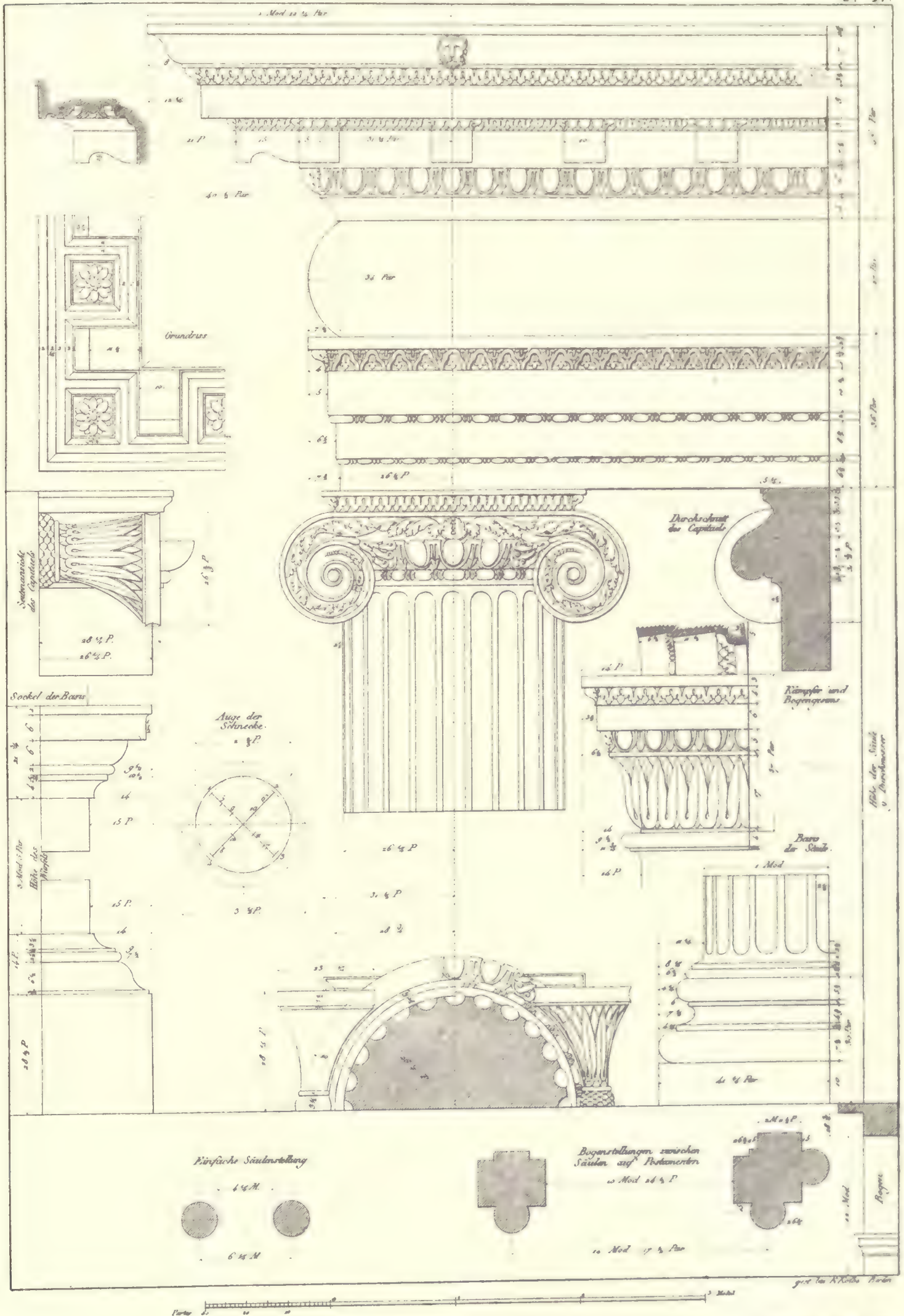


PLATE 48.

IONIC ORDER BY VINCENZ SCAMOZZI.

Here also are found modillions and a dentil member, probably an imitation of the cornice from the Temple of Concordia. The modillions are peculiarly decorated on the sides where they are always in shadow and not plainly seen. The column capital has, as at the Temple of Concordia, four corner volutes without connections at the top, but springing out in the same manner as we see on the degenerate Corinthian capital of the Arch of Titus, Plate 77. In addition to this, when we consider the floral swag which Scamozzi so cheerfully hung from the eyes of the volutes (which has been omitted in our plate), we are impressed that this order lacks the necessary earnestness of stone construction.

The impost is shown on Plate 50.

728

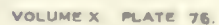


PLATE 49.

IONIC ORDER BY VIGNOLA.

Of the rules for the orders which were established by the later masters, those of Vignola are the most commendable. He has, with Vitruvius as a guide, best understood the old monuments, and would undoubtedly have left us very useful writings had he known the Grecian buildings.

In his order, the base is the Ionic after the description by Vitruvius, and the entablature and capital seem to be formed both from his rules and from the example on the Theatre of Marcellus. The construction of the volute is shown on Plate 51.

Names of the Members of the Ionic Order with the Corresponding Title by Vitruvius given in Parentheses.

I. THE ENTABLATURE (ORNAMENTA COLUMNARUM).

1. The Cornice (Coronix).
 - A. Fillet (Supercilium).
 - B. Cyma (Sima).
 - C. Small Fillet (Regula, Quadra).
 - D. Enriched cyma reversa (Cymatium Lesbium).
 - E. Corona (Corona).
 - F. Drip (Scotia).
 - G. Egg and Dart (Echinus).
 - H. Bead (Astragalus).
 - I. Small Fillet (Regula).
 - K. Dentils (Denticuli).
 - L. Sinkage; or band whereon Dentils are placed (Intersectio).
2. The Frieze (Zophorus).
 - M. Enriched Cyma reversa; Cymatium of the Frieze.
 - N. Frieze.
3. The Architrave (Epistylum).
 - O. Fillet (Supercilium).
 - P. Enriched cyma reversa; Cymatium of the Architrave.
 - Q. Upper Fascia
 - R. Middle Fascia
 - S. Lower Fascia

II. THE COLUMN (COLUMNA).

1. The Capital (Capitulum).
 - T. Fillet (Supercilium).
 - U. Cymatium; Enriched Cyma reversa (Cymatium).
 - V. Fillet of the Volute (Axis).
 - X. Channel of the Volute (Canalis).
 - Y. Eggs
 - Z. Shell and Tongue
- W. Flower and Stem (Encarpa).
- n. Volute (Volutæ)
- o. Bolster (Pulvini)
- p. Section of the Bolster at Belt (Baltei).

2. The Shaft (Scapus).

- a. Astragal (Astragalus).
 - b. Fillet (Limbus, Ceinture) with Conge (Apothesis).
 - c. and f. Flutes and spaces between (Striæ et Striges).
 - d. and e. The shaft (Scapus).
 - g. Fillet (Limbus) with Apophyge or Conge (Apophygis).
- ##### 3. The Base (Spira).
- h. Torus (Torus).
 - i. and l. Scotia (Trochili).
 - k. Astragals (Astragalus).
 - m. Plinth (Plinthus).

III. THE PEDESTAL.

1. Cornice (Coronix).
 - q. } Fillet (Supercilium).
 - } Cymatium (Cymatium).
 - r. Corona (Corona).
 - s. Ovalo or quarter-round (Echinus).
 - t. Astragal (Astragalus).
2. Die or Dado (Truncus).
 - u. Dado with fillet at top and bottom.
3. Base (Spira).
 - v. Astragal (Astragalus).
 - x. Inverted Cyma recta (Gula, Doucine).
 - y. Fillet (Regula).
 - z. Plinth (Quadra).

IV. THE IMPOST (INCUMBA) AND ARCHIVOLT

- a. Fillet (Supercilium).
- b. Enriched Cymatium (Cymatium).
- c. Abacus (Abacus).
- d. Enriched Echinus; Egg and Dart (Echinus).
- e. Astragal and Fillet.
- f. Upper Fascia
- g. Lower Fascia
- h. Fillet and Enriched Cyma reversa.

Nach Jacob Barozzio von Vignola.

700

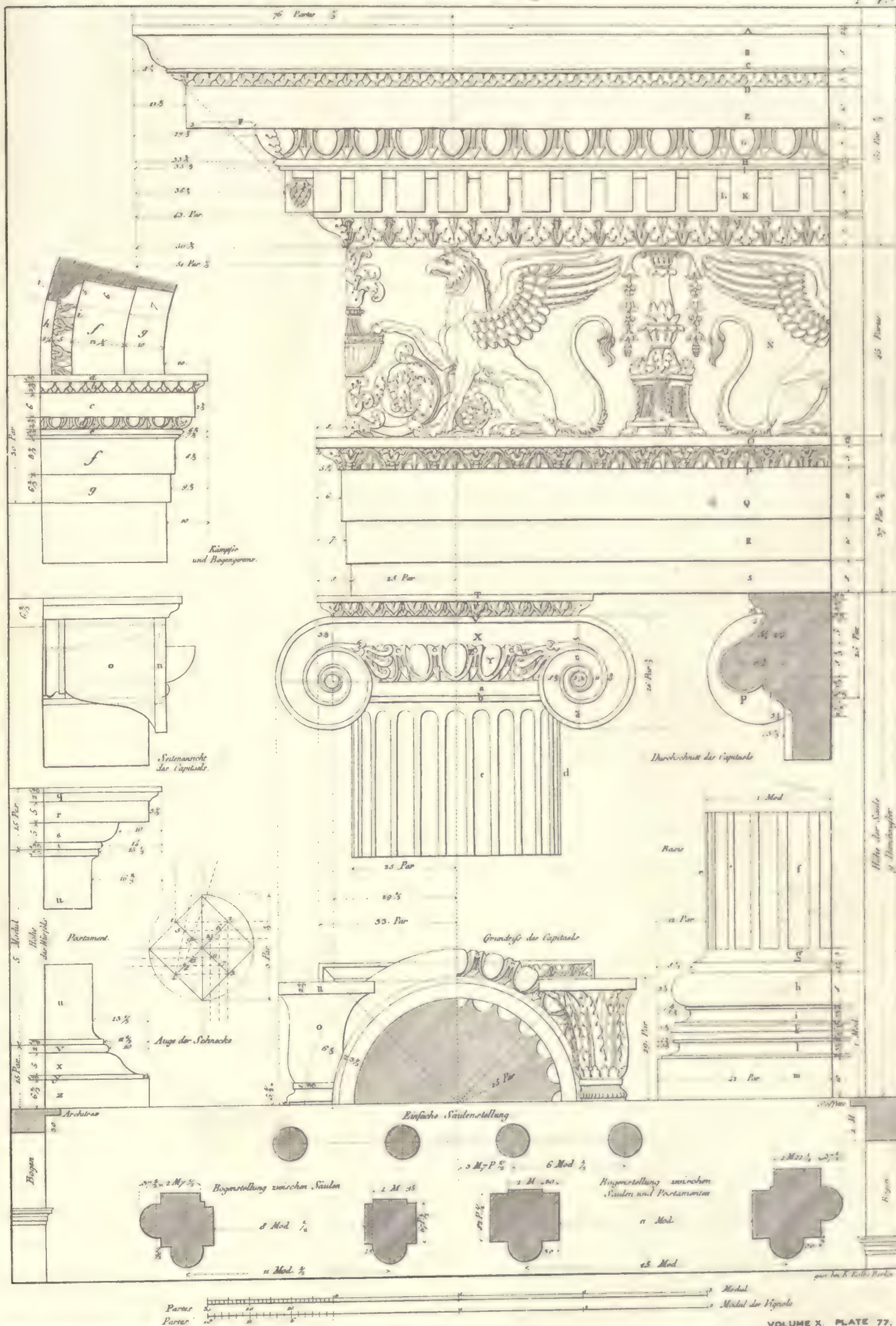


PLATE 50.

IONIC ORDER BY SERLIO AND ALBERTI.

Serlio's rules for the Ionic order seem to have been formed with reference to the authority of Vitruvius, although there are considerable differences which in Serlio's order are not for the better. The columns are about 3 modules and the entablature $1\frac{1}{4}$ modules less in height, and the cornice and also the dentils of same have too great a projection.

Alberti has studied the Roman monuments and has given out a learned work and in so doing has opened the way and been followed one after another by Serlio, Vignola, Palladio, Scamozzi, and others. These masters, however, introduced into architecture, with their rules for the orders, a certain sober feeling whereby they were led into a deterioration as will be seen by a comparison of their works with the vigorous architecture of Italy in the fifteenth century.

IONISCHE ORDNUNG,
von Serlio und von L. B. Alberti.

T. 50

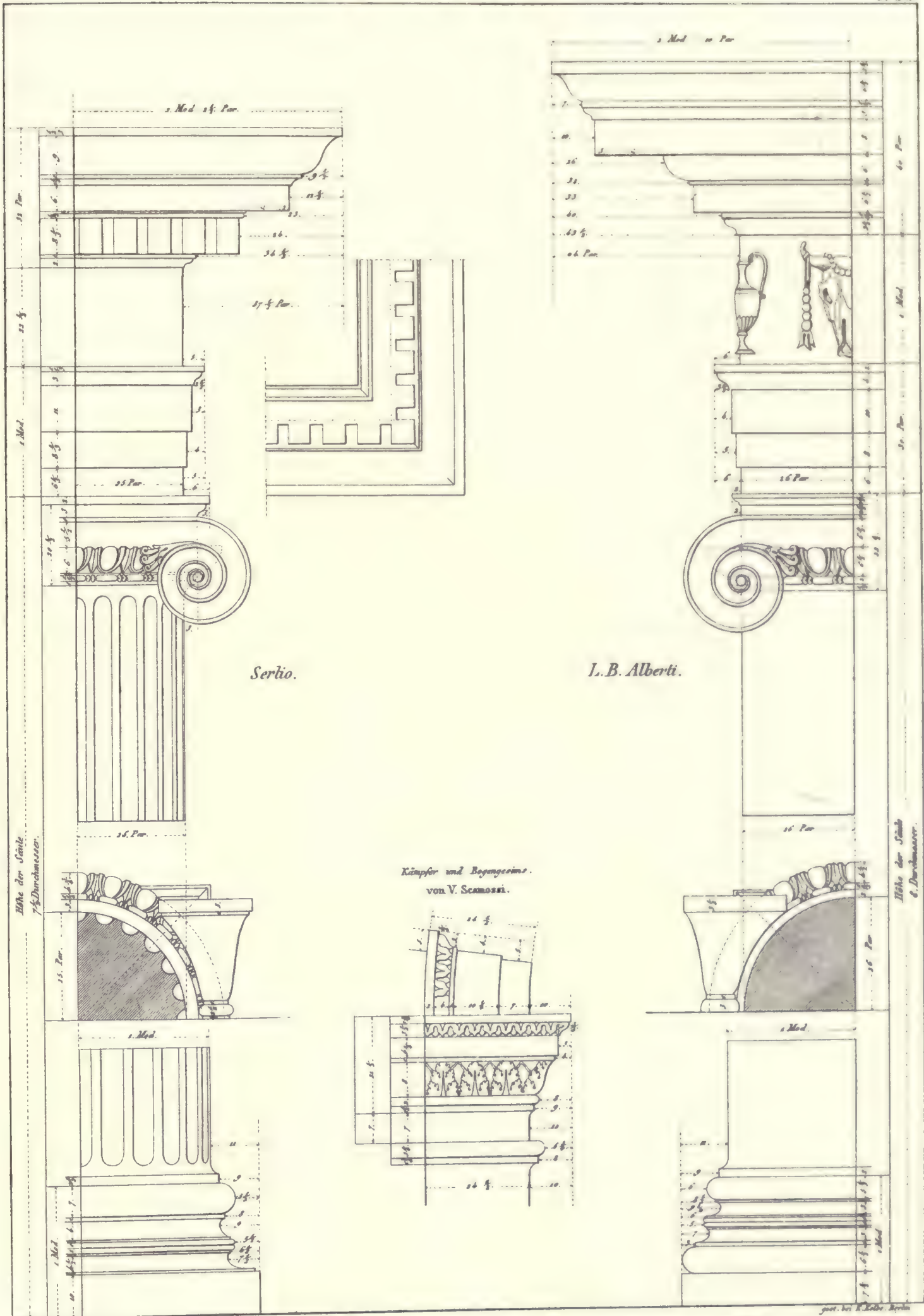


PLATE 51.

DRAWING THE IONIC VOLUTE, BY PALLADIO AND VIGNOLA.

Although every draughtsman should be able to readily draw the spiral line, as, for instance, the volutes of the Corinthian capital, the sides of consoles and in many kinds of ornamentation, nevertheless, when drawing the volute of the Ionic capital, he is glad to use the compass whenever it is possible to do so. For that reason we give the following methods in addition to those shown on Plates 36, 39, 40, and 41.

Plate 51 shows two, very little different, volutes, the construction of which can be accomplished by the scheme shown in the eyes, from which the methods of the oldest authors can be understood. That of Vitruvius was not for a long time understood, as the descriptive drawings on which his text was based were lost. About the middle of the sixteenth century Palladio, and at about the same time also Philibert de Lorme, discovered in a Basilica at Rome, an incompleated antique Ionic capital, on the eye of which the entire scheme laid off for the carver was preserved, wherefrom all at once the difficulties encountered by the followers of Vitruvius were cleared away. Alberti, who died 1472, still described his volute with four semicircles from points lying on the vertical axis of the eye.

Palladio endeavored to fill out a part of the curves between the 4th and 5th as also between the 8th and 9th quadrants with a horizontal connecting line, by which, however, the spiral line is broken in an unpleasing manner.

Vignola has the same scheme in the eye, and obviates the mistakes of Palladio by making the 4th and 8th quarter windings larger than quadrants, and the 5th and 9th correspondingly less. The connection with the eye requires a horizontal line, and makes an angle with the periphery of the eye. In both methods the starting and ending points of the quadrants can not be established by a simple calculation, as is possible with the method given on Plate 36, where for the drawing of the volute a great accuracy is obtained.

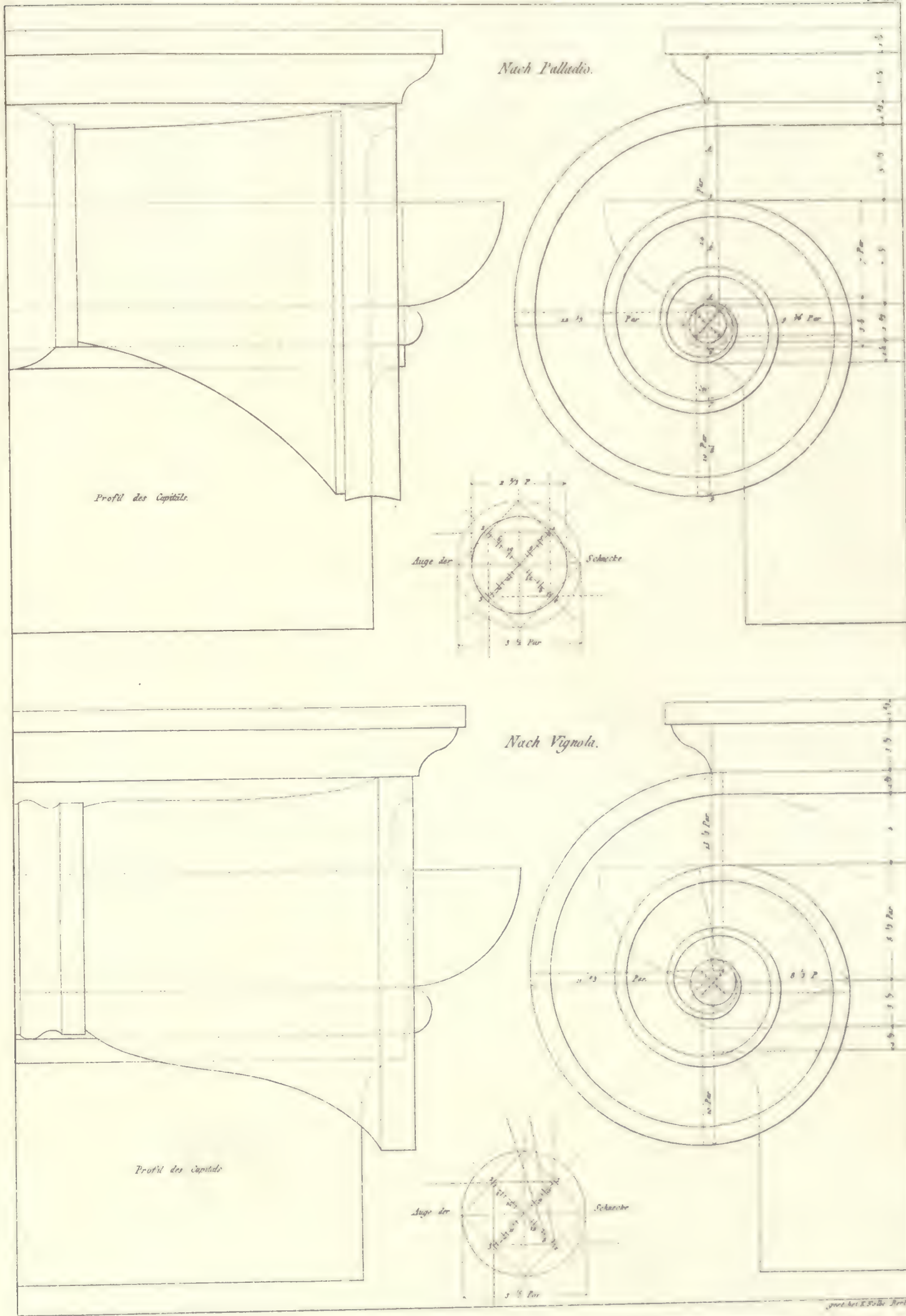


PLATE 52.

DRAWING THE IONIC VOLUTE BY DAVILE AND GOLDMANN.

In Davile's method, the intersecting points of the volute windings are to be laid off on the radial axes, the length of the radial lines being found from the geometrical proportionals as given in the diagram at the left, in which the lines B1, B2, etc., coincide with the same designated lines in the elevation. The center for the 1st arc 1-2 is at the intersection of two arcs whose radii are equal to A. B. and whose centers are at 1 and 2. This operation continued will complete the volute winding. The manner in which the arcs connect with each other, however, is slightly imperfect, as the radius at the finish of any arc does not fall exactly over the radius at the beginning of the next arc.

The method of Goldmann is similar to one of those given on Plate 51, but overcomes the faults of the one on that plate inasmuch as the 3 windings consist of 12 quadrants and the starting and ending points of the same are easily ascertained from the nature of the scheme. At the left-hand lower corner of the plate is given a diagram* for establishing the center points of the inner line of the spiral which can also be used for the volutes of Palladio and Vignola.

*The points 1, 5, and 9 under C correspond to the same points of the diagram in the eye, and the points b, c, and d under B correspond to the same points of the diagram in the eye and establish the squares (shown by dotted lines therein,) the corners of which are the centers for the inner spiral.—ED.

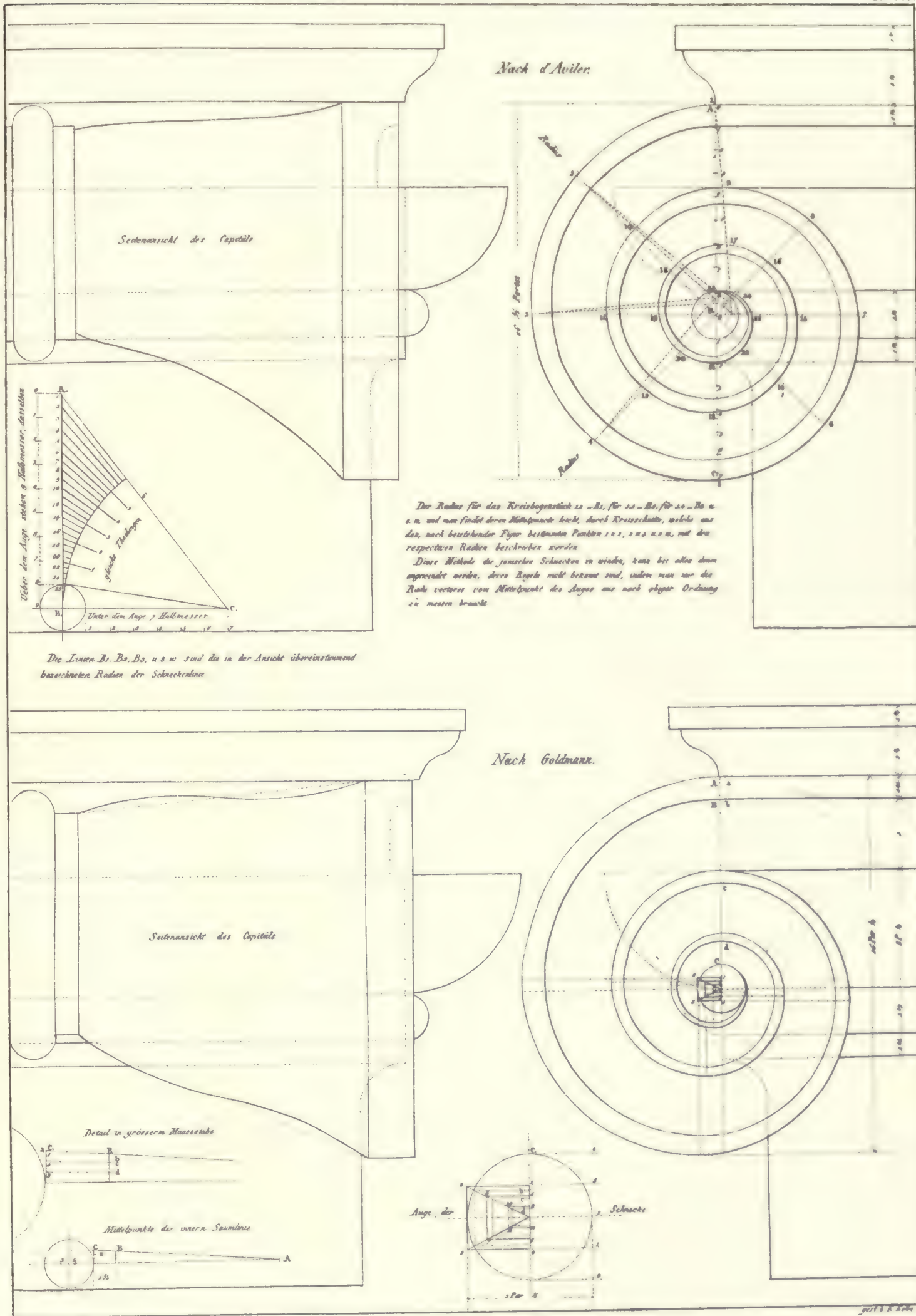


PLATE 53.

EXAMPLES OF THE CORINTHIAN ORDER.

Until the age of Pericles, the Grecians knew only two different styles of architecture, the characteristic variations of which were the column orders, namely, the sturdy earnest Doric and the slender graceful Ionic, both of which had reached the fullest development. The increasing admiration for the beautiful, by the art-loving people, as also the natural strivings of the artists to constantly surpass the work done before, naturally led to new forms which at first appeared on a column capital, of slender form and rich decoration, other than the Ionic.

According to Vitruvius the capital of a new third order originated with the Greeks in the following manner: Over a grave at Corinth was placed a high basket with a spreading rim, which was filled with all sorts of toys having belonged to one passed away, and in order that the contents of the basket might be better protected it was covered with a rectangular slab. By accident this basket was placed on the root of an acanthus plant, which grew and encircled the basket with its leaves, stems and flowers, and bent itself under the cover in such a charming manner that the sculptor Callimachos, struck with its beauty, took therefrom the idea of a new column capital and shortly thereafter carried out entire columns with similar capitals at Corinth, from which this new order took the name Corinthian. The other parts of the column, as also the cornice, were borrowed from the Ionic order of the Greeks; these parts, however, first received a character of their own from the Romans, and the entire order took on the greatest richness which, though, inclined to the extravagant.

In treating of the Corinthian order we had not so large a selection of Greek examples as was the case with the Doric and Ionic. Some fragments of columns have been preserved which are given on Plates 58 and 59, but the original entablatures belonging to them were not discovered. For that reason we can show only two complete Greek examples, as shown on Plate 53, which can answer as representative of the others. The third example belongs to the Roman.

The first example on this plate is taken from a two-columned Prostyle on the Tower of the Winds at Athens, erected about 159 B. C., the details and plan of which are given on Plate 60. The elevation given on this plate shows a side view of this Prostyle but on account of lack of room the spacing of the column and pilaster is shown less than was actually the case. The columns are of a strikingly heavy proportion; this is explained though by their small size, being only 13 feet 6.85 inches high, and also on account of the unusually wide intercolumniation which was $3\frac{1}{2}$ diameters. The columns stand without base on the upper plinth. A base would not only have shortened the apparent height of the column, but would have obstructed the passage. The application of the plain membered pilaster capital shows us that the Greeks still held it proper to decorate the square differently from the round.

The second example represents the order of the Choragic Monument of Lysicrates at Athens, which was erected of white marble in the most magnificent style at the end of the culminating period of Grecian art. The relations between the column and entablature are excellent, the members are of pleasing and elegant form, and all ornamentation is of the finest origination. We will consider this monument in detail on the next four plates.

The third example shows a Corinthian order from a Roman building of the best epoch. It is from the eight-columned Prostyle of the Pantheon, which was erected shortly before the Christian era. The principal parts are not much at variance with those of the Greek examples, though more so are the form and arrangement of the decorations, mainly on the upper portion of the cornice. We will at Plate 64 treat this order in detail.

In regard to the size of the members it might easily appear in comparison that those on the Roman example are much smaller than those on the two Greek examples, where the members of the base as also the cornice and capital appear larger; but by referring to the measurements on the plate the apparent difference in scale is explained. The order from the Monument of Lysicrates carried out at the size of the Pantheon would be bold and monstrous, while the Pantheon reduced to the size of the other would appear like a model. On the better monuments we find in these respects the correct scale. All parts were calculated for their size as actually to be built, and would at any other size appear too small or too large as they were reduced or enlarged. For this reason the newer authors of the so-called order books are to be very much criticised as they set down rules which are to be applied to orders of all kinds, whether they be 15 feet or 51 feet high, whether the material is dark or light, polished or rough, fine or coarse.

Vom Mon: des Lysikrates in Athen.

Vom Pantheon in Rom.

Vom Thurm der Winde
in Athen.

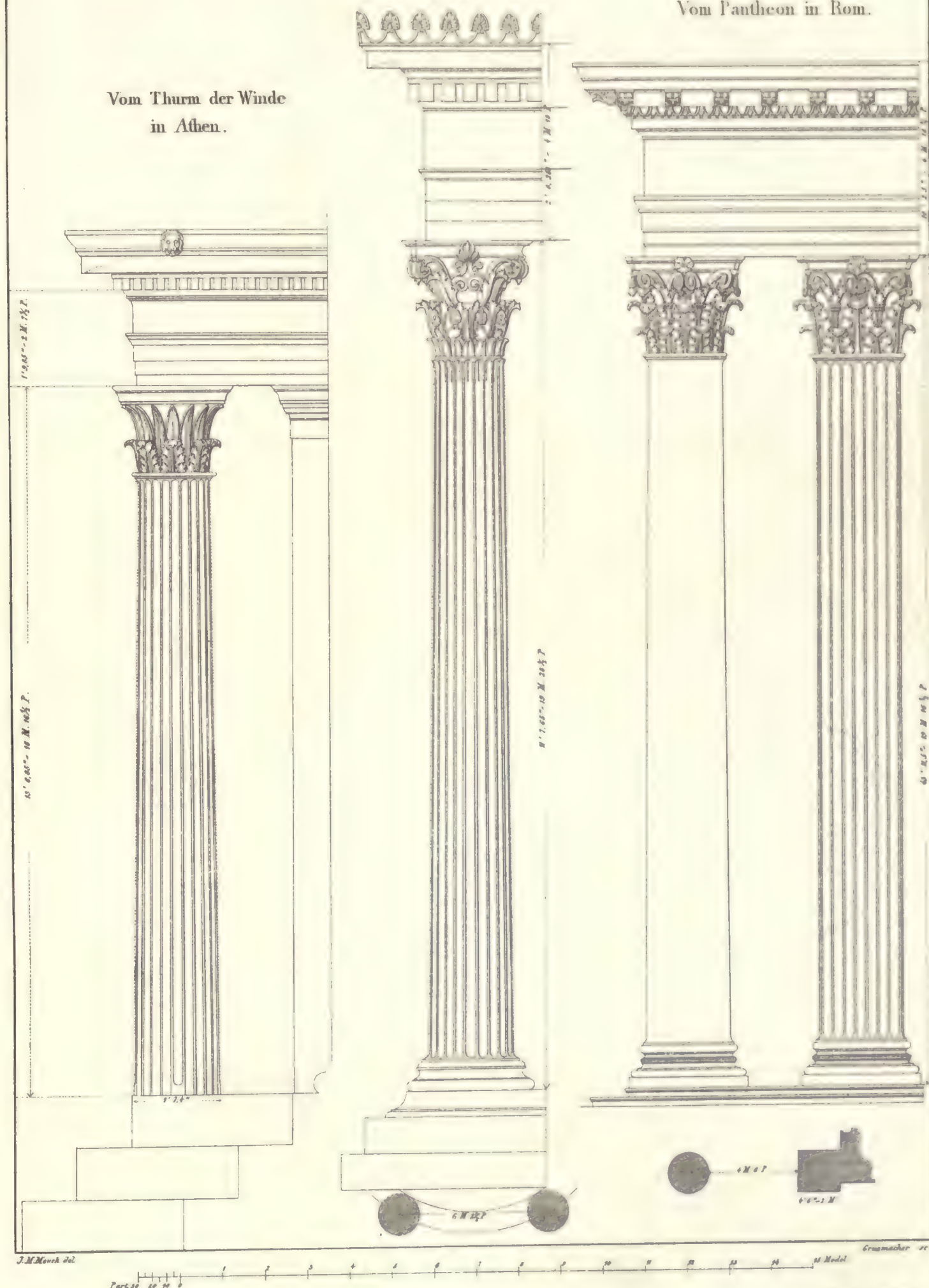


PLATE 54.

THE CHORAGIC MONUMENT OF LYSICRATES AT ATHENS.

With the Greeks, the capital alone forms the characteristic distinction of the Corinthian style, and only in deference to them can we consider this as a third order, for all the other parts were borrowed from the Ionic. The Romans were the first to individualize the different divisions of the Corinthian order.

The Greeks evolved two styles of the Corinthian capital in both of which the high basket or bell and the flat cover always formed the basis. In the plainer example the lower part of the basket is encircled with one or two rows of eight acanthus leaves each, behind which is a row of slender smooth leaves or palmettos covering the upper part of the rim. The cover has four straight fronts. On the second richly decorated capital, two rows of leaves also covered the lower part and behind or between the leaves of the upper row were stems from which sprung scrolls, part of which developed into spirals, or volutes in pairs, under the projecting corners of the cover, and a part clung to the middle of the front of the basket and was crowned with palmettos. The cover had concave fronts and pointed or truncated corners. The first style often occurs on small monuments of later times; for instance on the Temple of Apollo at Miletus, Plate 59; on the Tower of the Winds, Plate 60, on the Tomb of Mylasa, and at other places. The second style we find mostly on rich ornamental structures of earliest and later times and at different scales; as the Temple at Bassæ, Plate 59; the Temple of Apollo at Miletus, Plate 58; and on the monument of Lysicrates on Plate 54, to be now considered. There are in addition several variations, the most noteworthy of which will be taken up later.

The purpose of choragic monuments has been already given in our description of Plate 17. The monument to Lysicrates was a small tower-like structure, erected about 334 B. C., entirely of Pentelic marble, in the most elegant Grecian Corinthian style, and is still standing, considerably damaged, on its original site at the foot of the eastern side of the hill of the Acropolis. It is composed of the following parts: at the bottom is a postament-like structure 12 feet 8 inches high; on this stands a round six-columned Pseudo-Peripteral, the order and plan of which are shown on the preceding plate; and over the round entablature of the order vaults a flat cupola or dome, on which arises the magnificent finial which once supported the tripod.

Plate 54 gives the details of the columns and entablature. Each column, including base and capital, was in one piece, and the spaces between them were filled with thin slabs, so that only 13 flutes and 14 fillets were visible from the outside. The upper endings of the channels of the shaft are shown as plain leaves, and between them and the capital is a sinkage, which was presumably intended for a string of pearls. On the Normandian plate the capital is copied from Stuart, who represents it rather indistinctly and with a peculiar restoration, and because of this it has received unfavorable criticism. By means of a cast of the entire monument, which the art-loving Count Choiseul Gouffier had made at Athens, between the eighties and nineties of the former century, and had sent to Paris, further casts were constructed, from which we are better informed. From such a model we have drawn the capital as shown on Plate 53, as also the parts shown on the following Plates 55, 56, and 57, and can assure the student that the character of the leaves or foliage on the capital is very similar to that on the upper part of the finial shown on Plate 57, in fact that it belongs to the best class of Grecian ornament.

The architrave and frieze consist of a circular stone, the reliefs representing the victory of Bacchus over the sea robbers. The plate shows the central group, Bacchus feeding a panther. The drawing of the cornice on the Normandian plate is, like that of Stuart, incorrect, inasmuch as the face of the corona and the cresting are not perpendicular, but actually lean forward as given on our Plate 55, whereby a better relation with the roof behind is obtained, and at the same time an excellent optical effect is brought out. The several members on this order show delicate relations and elastic profiles which harmonize with the larger curves of the whole.

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PLATE 55.

THE CHORAGIC MONUMENT OF LYSICRATES AT ATHENS.

Continued.

Plate 55 shows the elevation in half of the cupola, over the center of which, and with its lower part connected thereto, rests the beautiful finial. The upper surface of the cupola is, like a roof covering, worked with scale-like pointed leaves. The two gutters resulted from the overlapping connection of the cupola with the cornice. By a change in form of these was obviated an otherwise difficult complication, and at the same time the wave-like form of the upper cresting seems to blend with the marine subject represented by the reliefs in the frieze (The victory of Bacchus over the sea robbers).

At the foot of the finial, and spaced equally around the same, spring three consoles which are represented and described on Plate 56, and also shown on this plate. If we note on Plate 57 that the richly decorated upper part of the finial, has only a bearing surface of 11 inches in diameter where it rests on the lower portion connected to the cupola, and consider that its three arms extend exactly over the consoles below, it would seem probable that from these the projecting arms were once supported. For in this way the upper portion which supported the tripod could best be given the necessary stability. The restoration of these supports in proper relation to and in harmony with the incomparable fine architecture of the monument, is a difficult matter, the solution of which has been tried in different ways. It has been attempted with sphinxes and chimera; but the representations in comparison with the rest appear entirely too small in scale, as the height to be filled in is only 2 feet. A continuation of the ornament from the console would be without reason and cause an overloading of floral decoration. Many other methods can be thought of, but in most every case similar objections arise. Stuart, who first examined this monument thoroughly, and described it in his work, has completed these connecting links by means of dolphins. We find such animals well adapted for this as they relate to the story on the frieze where the dolphin already occurs many times. We cannot however entirely agree with the sickle form of the dolphin which can be seen in the tail vignette of the 4th chapter of his 1st book. We have retained the dolphins in our restoration, and have endeavored to form them in such a manner that in execution, they would at no place come too close to the leaves of the finial; on the whole they form a secure support for its arms. In this way it happens that the tail of each dolphin supports the arm at a place where even now it can be discerned where a piece has been broken off, while the head of the animal rests on the portion of the console directly thereunder, likewise restored by us. Such a restoration by dolphins would give a reason for the consoles and make the whole finial and cupola complete. It might also be mentioned that a hole in the cupola occurring at each console suggests that originally a metal dowel or rod was placed there for securely holding the missing support in place. In plan (Plate 56) is shown for this reason, on the restored part of the console, a notch for the rod which was directed against the head of the dolphin, and probably extended up through the body to the marble arm. From this we can suppose the dolphin to have been of bronze, and probably gilded.

DIE KUPPEL V. MON. D. LYSIKRATES.

LA COUPOLE DU MON. DE LYSICRATES.

T. 53

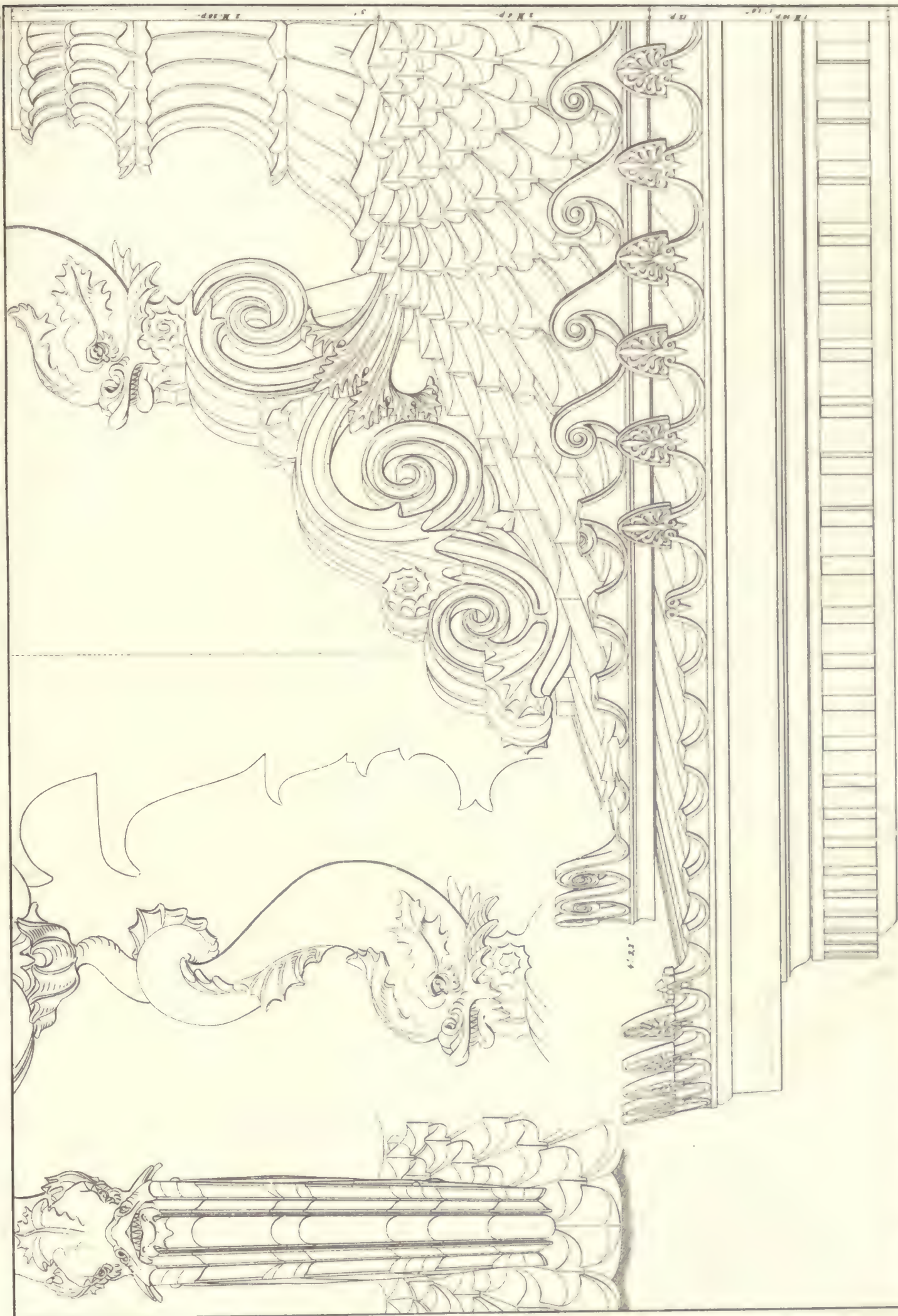


PLATE 56.
THE CHORAGIC MONUMENT OF LYSICRATES AT ATHENS.
Continued.

Plate 56 shows the section in half of the cupola as also the section of the corona of the cornice from which can be seen that these stones answered partly as a support for the cupola, and partly to lead off the rainwater in gutters shown at E. The cupola rests on the corona in such a way that the load is exactly over the axis of the columns, and the corona is also secured thereby. The sections of the two gutters are shown at E and F, and the lower row of leaves is shown also in section at G, the remaining leaves being similar. The profile of the thin outer edge of the cupola from which springs the wave-like cresting is shown on the left of the plate at half the actual size.

Over the entablature the cupola arches itself, though not constructed as an arch, but very skillfully worked out of a single stone 8 feet 4.4 inches across, and, from the bedding into the cornice up to and including the lower portion of the finial connected therewith, 3 feet 4 inches high. At the foot of the finial and spaced equally around the same, spring three acanthus flower cups, from each of which in turn springs a highly ornamental cluster of thistle leaves and flowers, one part hanging downward on the roof in the form of a console-like mass, and the other part extending upwards, whereof only so much remains as is shown below the broken line C. The part above this line, springing from a thistle leaf, was restored at the site, in the style of the portion yet remaining. On the plan and section at the beginning of each console is shown a round hole in which was probably placed a metal rod for the support of the dolphin above as described on Plate 55.

DIE KUPPEL V. MON. D. LYSIKRATES. LA COUPOLE DU MON. DE LYSICRATES.

T. 56.

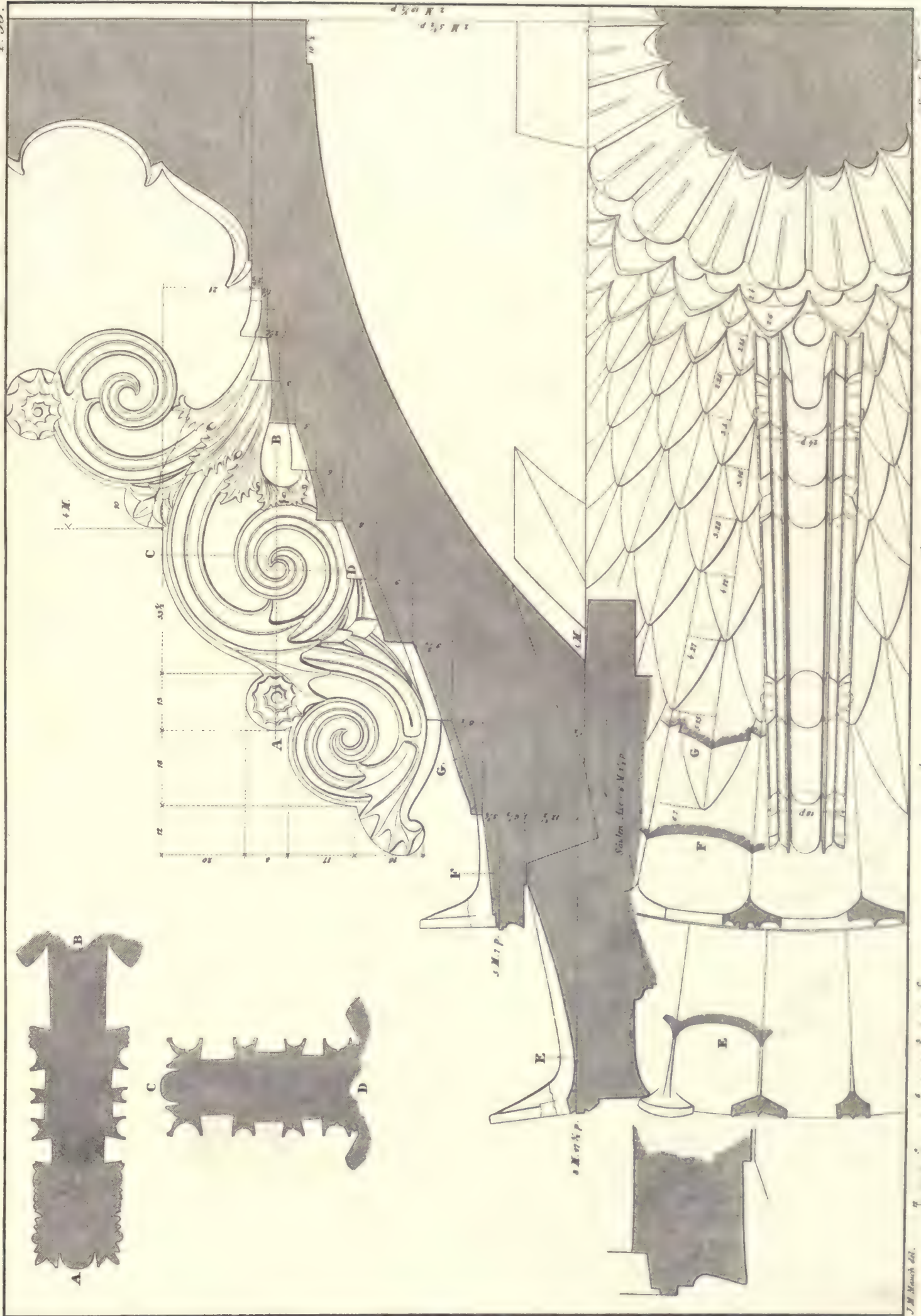


PLATE 57.
THE CHORAGIC MONUMENT OF LYSICRATES AT ATHENS.
Continued.

On Plate 57 is shown complete with plans, the finial which rested on the cupola of the monument. The lower portion, from the narrow band down, is a part of the mass of the cupola. The upper three-armed portion which springs from an urn formed by two rows of acanthus leaves resting on the narrow band, is worked out of a single stone, and is of the richest origination and of the most complete execution known in Grecian monuments. The upper horizontal surface of this part, a quarter plan of which is shown under A, has in the middle a round, and at each extension an oblong, sinkage. These sinkages once answered in all probability for the fastening of a three-cornered slab, which acted as a cover-plate for the finial and also without doubt carried the tripod, the feet of which stood centrally between the arms. The dotted line under A gives the horizontal section at B (in elevation.) Under C is given a horizontal section taken at D, with the leafwork shown in plan looking up.

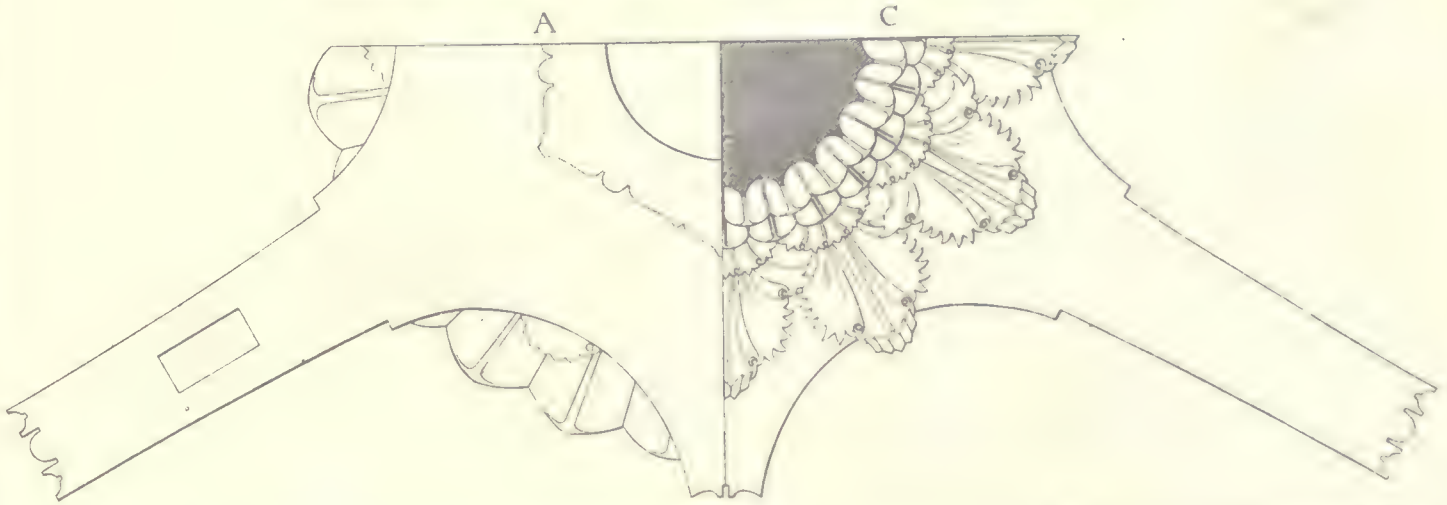
In order to secure the stability of this finial the wide projecting arms were once supported from the consoles resting on the cupola as has already been described at Plate 55.

The plaster casts which were used for the restoration given on our three plates, though taken at a time when the monument was in much better condition than at present, are very fragmentary, as all leaves and outer ends of the upper projections were broken off. For this reason, therefore, we have had to make numerous restorations, though always in the spirit of the existing portions.*

Although this fantastically decorated finial represents the highest attainment in the richest capital ornamentation of the Corinthian style, we see also the most perfect combination of the beautiful with the useful, the exquisite crowning of the cupola combined with the necessary support for the tripod, in excellent keeping with the surrounding work.

We find here therefore in the very richest architectural ornamentation, as everywhere in the architecture of the Greeks, the decorative forms brought about and evolved from constructive requirements, and executed by a highly trained artistic genius who knew how to give them their invigorating and proper character.

*In the Edition of 1886 the editors remark that in Mauch's restoration of the finial, though the drawings must be admitted to be as a whole excellent, closer observations of the casts suggest that some single parts on the upper portion seem incorrect, in that from the upper plant stems, as indicated by the remains of the casts, scrolls arose which hugged the side surfaces of the cover-plate.—ED.



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

J. M. Mouché del.

P. 50

Grav. v. Mouché

C. Mery sc. = Berlin
2 Model

PLATE 58.

FROM THE VESTIBULE AT ELEUSIS, AND FROM THE TEMPLE OF APOLLO DIDYMÆUS AT MILETUS.

The Propylæ at Eleusis which is represented on Plates 12 and 38, led into the outer court and from this court a Vestibule or the so-called Lesser Propylæ gave access to the inner court in which stood the Demeter Temple, the Telesterion erected by Ictinus for the celebration of the Eleusinian Mysteries.

On both sides of the central door of the Vestibule were antæ and before these stood columns as shown on the plate, Fig. 8. At Fig. 6 is the narrow side of an anta base, the plinth of which has below a sort of panel whose vertical members are shown in plan at Fig. 7. Capitals of the antæ were found tumbled down and much damaged; the ornaments on the corners were broken off, though the wings were preserved. The restoration by means of chimera on the front, Fig. 1, is by Schinkel. On the side view of the second capital the wings are formed spreading away, and they reach farther down; the acanthus leaves are also larger, making a different restoration at the corner necessary, which we have carried out after our idea at Fig. 2.

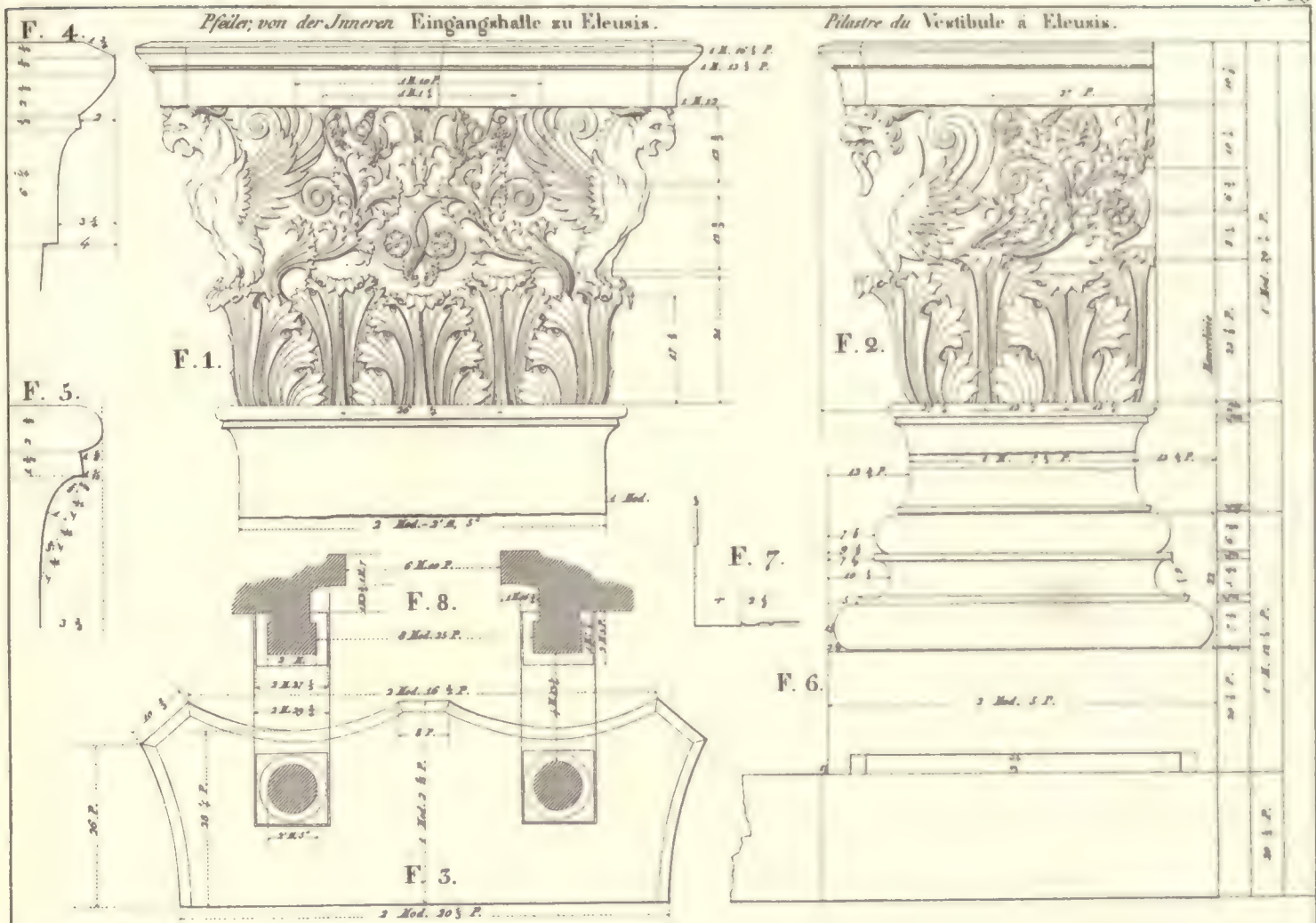
Of charming fantasy and in keeping with the other parts is the decorative ornament over the leaves, taking the form, at the top, of the abacus (Fig. 3) so that the lotus flower stands out prominently in the middle. The profile of the abacus as well as of the upper part of the shaft is given at Figs. 4 and 5 at larger scale. The columns before the antæ have, like the latter, a fine profiled base and a fluted shaft. The capitals belonging to them were similar to those of the antæ but with a three-sided abacus, which indicates that they carried tripods and not an entablature. These capitals without doubt belong to the Corinthian order.

The erection of this Vestibule might have been somewhat earlier than the time of the erection of the 12-columned prostyle before the Temple of Demeter, about 318 B. C.; its date was therefore a short time after that of the monument of Lysicrates with which the excellent character of the remains represented on our plate bear striking relationship.

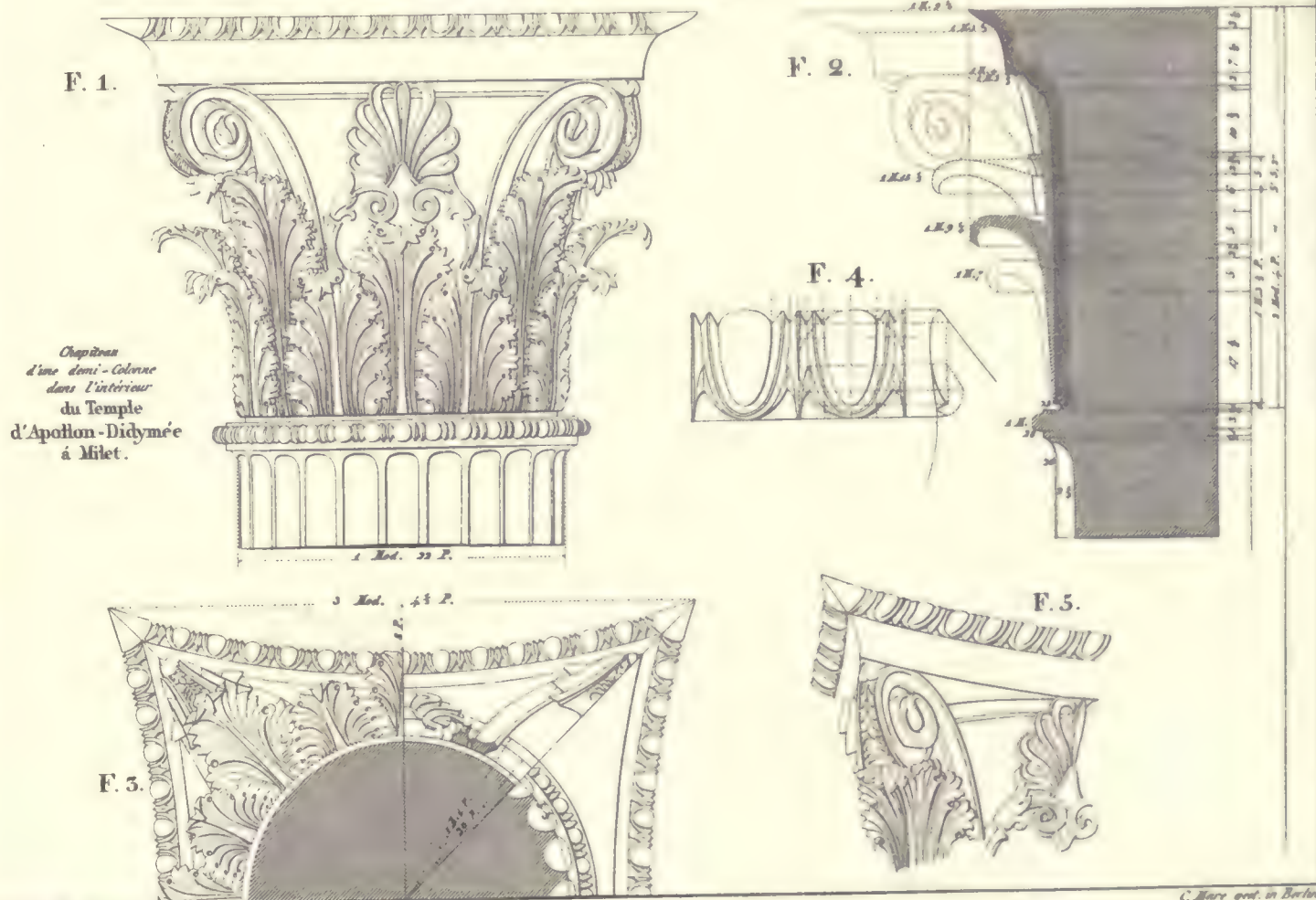
The capital on the lower part of Plate 58 is from the Temple of Apollo Didymæus at Miletus. The location of the two half columns to which this capital belongs was given in the description of Plate 43. It is of considerable size, about $5\frac{1}{2}$ feet high, excellent in its proportions and highly exemplary, and may have answered as an example for the Corinthian column capitals in Greece during the Roman rule. The ends of the leaves on this capital were broken off, as is the case with all other fragments of Grecian Corinthian capitals. On our restoration, two leaves spring out under the points of the abacus, one of which suitably fills out the space, and the other decorates the surface between the volutes as shown at Fig. 5.

At Fig. 1 is the elevation and at Fig. 2 the section of the front of the capital and in dotted lines on the latter figure is a diagonal view. At Fig. 3 is a portion of the plan, parts of which have the leaves and volutes omitted in order to show the other portions plainly. The time of the origination of this capital can not be given exactly, presumably though it is of the same date as the ones described above.

At Fig. 4 is the egg and dart at larger scale. On the first Grecian examples of this ornament, particularly on the Erechtheum, we find as a rule the following relations: The spacing from center to center is the same as the height; the profile from which the ornament is worked is that of an egg, or similar to the echinus of the Grecian Doric capital; the form is that of a serpent egg which is $\frac{7}{8}$ of the total height; the width of the egg is the same as the space between, the latter being divided into 3 parts, of which the middle one is for the dart (or tongue) and the other two are for the enclosure or shell of the egg. When one has drawn this egg and dart after these rules, the form and fine proportions of this ornament will make a lasting impression, which can not be said of the wide spreading style found in the later Roman examples.



Krauf von einer Halbsäule im Inneren vom Tempel des Apollo Didymus bei Milet.



J. M. Marché del.

C. Hare grav. in Berlin.

Paris 1860. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

PLATE 59.

VARIOUS CORINTHIAN COLUMNS AND PILASTERS.

Column capital found under the ruins of the Apollo Temple at Miletus:

From a row of eight leaves which were found much damaged springs the same number of palmettoes, each differently formed. The abacus is somewhat concave. The height of the capital is 1 foot 4.55 inches and the diameter at the bell 1 foot 5.95 inches, as was also the upper diameter of the column which was $\frac{5}{8}$ of the lower diameter. From its style, this capital is related to that on the Tower of the Winds at Athens and belongs to the times of the followers of Alexander. How it stood in connection with the Temple is not known. Similar capitals were much used for columns of small size and many broken pieces of such have been found.

Column from the interior of the Apollo Temple at Bassæ:

Opposite the entrance to the cella of this Temple stood a free standing column of different style than the Ionic half columns ranged along the sides (see Plate 37, Fig. 10, A). This column supported the Ionic entablature across the end. The capital was found by Baron von Stackelberg, tumbled down and much damaged. The form of the ends of the lower row of water leaves is not known, and the spreading corners of the abacus as well as the points of the long leaves found thereunder are broken off. The concave surfaces of the abacus were decorated in color with the meander and the visible portion of the bell or basket was decorated with the sword lily, traces of the color of which are still discernible. In the drawing we have restored the missing parts in harmony with the existing remains, and in the same style as the remaining ornament. In keeping with the capital the base of the column has more members and the mass is lighter than the Ionic at the sides of the cella.* The flutes of the shaft do not extend entirely to the bottom. The upper part of the shaft (which was not found) we have shown with an ending similar to the shafts on the Monument of Lysicrates, because thereby the slenderness of the entire column is less broken than with the use of the usual astragal. Before this column probably stood the statue of Apollo Epicurius of which pieces were found. The great mass of the Ionic capitals acting disturbingly on the sculptures and also the isolated position of the column, gave the idea to ornament it independently, and the artist knew how, with correct feeling, to treat the two different types harmoniously. This is the oldest example of the Corinthian capital known, for which, according to Vitruvius, the sculptor Callimachos of Corinth originated rules. According to Pausanias, the Corinthian order occurred in the interior of the Temple of Minerva at Tegea (erected Olympiad 96 by Scopas). Later we find it in the Temple of Apollo at Miletus and on the vestibule at Eleusis. The best preserved though is on the monument of Lysicrates at Athens.

Pillar capital and column from the ruins near the Amphitheatre at Pæstum:

These fragments probably came from an ancient Grecian city, but originated under Etrurian or Roman influence. During my presence in Pæstum in the summer of 1830 I found under or among the ruins two pilaster capitals and a column base. Two column capitals from the same ruins were found removed to another place in this ruined city, and also six capitals on their original shafts were found carrying a row of pointed arches which supported the roof of a stable of the arch-episcopal palace at Salerno, where they were probably taken at the time of Robert Guiscard about the year 1080. That these remains, at present so scattered, once belonged to one and the same building is obvious from the exactness of the dimensions, style and material. The latter is a grayish white limestone and was covered with a thin stucco. The heads yet remaining on the column capitals are mostly of women. The corners of the abacus and the volutes are broken off. The plinth of the column base is round. The lower diameter is 1.10 meters, but the column height was not ascertained, as the bases of those still standing at Salerno were under the floor. The fluted column shaft is broken with several smooth bands, of which one is shown on the elevation. Similar capitals decorated with heads were also found at Pompeii, and it seems that this form was commonly used in those locations where early Greek and Roman art intermingled. We represent these columns and pillars only as examples of peculiar departures and not as models.

* By others this base-like fragment has been declared to be a small round altar and not the base of the column.—ED.

PLATE 60.
FROM THE TOWER OF THE WINDS AT ATHENS.

Andronicus Cyrrhestes erected this tall eight-sided horologium of Pentelic marble about 159 B. C.* On the eight sides, under the entablature, are represented in relief figures, the eight principal winds to which pointed a huge Triton, working on a pivot, which was located on the apex of the roof. Under the reliefs are yet seen indications of sun dials. Two entrances with two columned porticos led into the interior where was located a water-clock. The water to the clepsydra was lead down on a very interesting arcade which we will consider on Plate 96. On Plate 53 were shown the column and pilaster complete, and to avoid repetition we refer to our description of that plate.

Plate 60, Fig. 8, shows a plan of the portico which has now fallen in. The entablature and height of the pediment can be restored from the fragments discovered, and also the mouldings on the wall over the door, Figs. 1 and 6. The ceiling of the portico was presumably of one piece and was divided into panels and rested on the architrave as shown at Fig. 6

The column shafts are broken off above, and the capitals could not be found at the place. That given by Stuart and shown on our plate was discovered nearby and is not actually authentic, though from its similarity to the decoration on the apex of the roof and its harmonious relation to the other architecture of the building, little doubt remains but what it belonged thereto.

Fig. 4 is one eighth of the plan of the capital, and Fig. 5 a plan through the long leaves which cling to the bell of usual form. This beautiful capital of the simplest Corinthian style is often found in Greece with little variation. An ornamental example of this type of capital is that found in the ruins of the Temple of Apollo at Miletus shown on the preceding plate. It found use, however, only in small dimensions, and at the most should be made only 2 feet high.

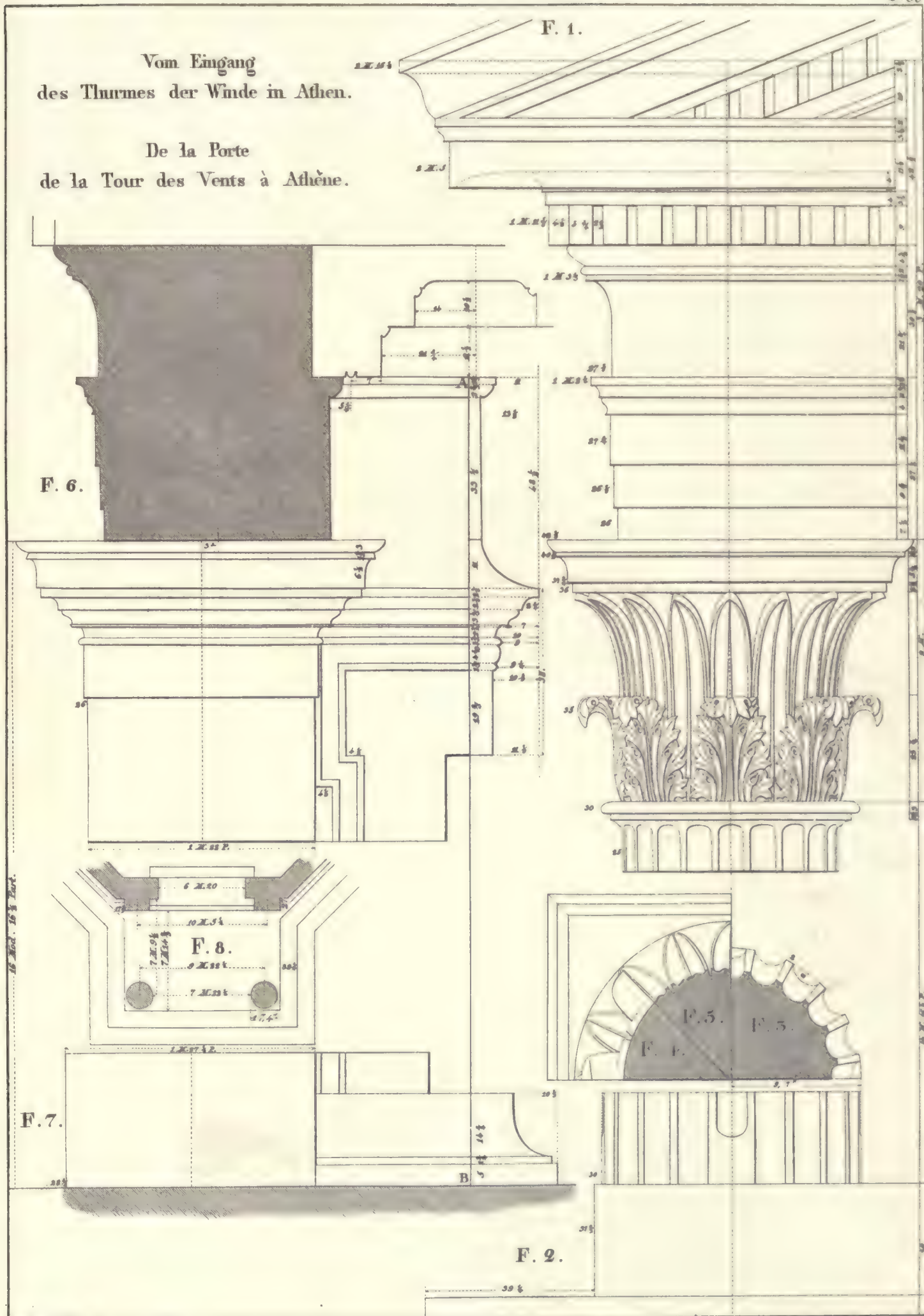
Fig. 3 is a plan of the column shaft, the flutes of which do not all reach to the plinth as shown at Fig. 2. The profile of the pilaster capital at Fig. 6 could be ascertained from the traces visible on the wall. According to Stuart it is not directly under the architrave and the axis of the pilaster front leans in at the top and only the inner side of the same is vertical. Probably this was in order to give the outer line a similar leaning to that of the column shaft and thus produce a pyramidal effect. The jambs of the door also were not vertical. The crowning members over are not in a very pleasing manner connected with those of the pilaster capital. A section through the sill and door lintel at A, B. is given.

In all profiles of this building we do not find, however, that freshness and vigor displayed on the earlier monuments. With this structure closes the cycle of architectural examples of Grecian originality and purity, and we find from now on, in the later structures of Greece, the Roman influence.

*More accurately in the middle of the first century B. C.—Ed.

Vom Eingang
des Thurmes der Winde in Athen.

De la Porte
de la Tour des Vents à Athènes.



J. M. Mauch delin.

Gest. v. C. Mare in Berlin

Partes 50 30 10 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 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PLATE 61.

FROM THE PORTICO OF THE GYMNASIUM OF HADRIAN AT ATHENS.

This and the two following examples of the Corinthian order belong to a much later time than those heretofore considered. Their style is more Roman than Grecian and we consider them here in rotation only because they belong to the Hellenic territory and still have a slight resemblance to the Greek style.

The structure from which the order on our plate is taken is designated by the later explorers as a Portico or Stoa of Emperor Hadrian, and was found on the west side of a peribolos, which presumably once enclosed a pan-Hellenion in the northern part of the city, and did not belong to the Temple of Jupiter Olympius.

The capital, on account of the sharp points of its abacus, does not compose favorably, and only a material like the Pentelic marble, from which the entire structure was built, would be possible for such execution. In addition, the members of the abacus are not fortunate, so that its diagonal view is extremely unpleasing.

The cornice has, instead of dentils, modillions, modelled after beam heads, which on the examples heretofore considered, do not occur. Between these modillions on the underside of the corona are panels with rosettes, which are of Roman influence, as is the placing of the columns on a pedestal, on which the base projects far out over the dado, and finally also the manner in which the flutes of the columns are filled one-third their height with beads. The wall pilasters and antæ, which with the columns carry the entablature, have a like capital, but are not fluted.

POSTAMENT, BASIS, CAPITAELE UND GEBÄLK KORINTHISCHER ORDNUNG,
aus den Ueberresten einer Porticus vom Tempel des Jupiter Olympius zu Athen.

T. 61.

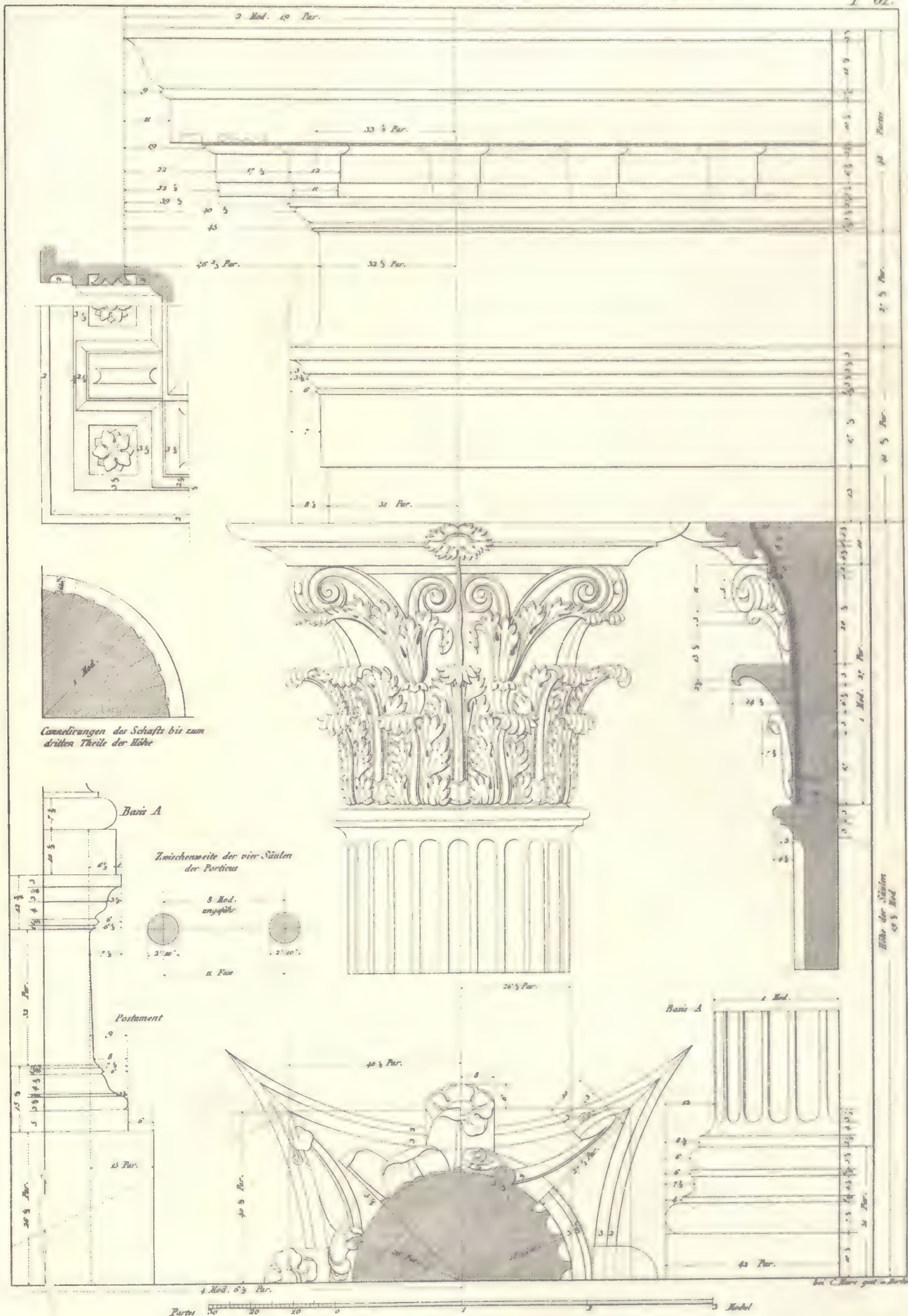


PLATE 62.

FROM THE INCANTADA AT SALONICA AND THE ARCH OF HADRIAN AT ATHENS.

A row of five columns standing on a pedestal carry an entablature over which stand a like row of pillars (standing on a low stylobate) which are connected by an architrave over. On both fronts of these pillars are found life-size mystic figures in bold relief from which this monument received the Spanish name Incantada. Its original intention is not known. In Bordeaux once existed a similar structure which was called Le Palais Tutele, and answered for a tomb.

Plate 62 at the left shows the lower order of the Incantada whereon we notice the deterioration which existed in the architecture of the time of Hadrian or his followers to which time this monument presumably belonged. The thin abacus of the capital (as on the former example and the one hereafter) has pointed corners into which the unpleasing volute seems to grow. The leaves are far projecting. On the entablature, the frieze has an unusual and unnatural profile and inorganic ornamentation. All members are harsh, although the material is Pentelic marble. The column shafts in one piece are alone of cipollino (marble) and for that reason are not fluted.

The order at the right is from the Arch of Hadrian which stands southeast of the citadel, near an incompleated Temple of Jupiter Olympius erected by the above Emperor. The arch forms the gate between the old city and that part built by Hadrian. This structure without much depth, is formed of two stories the arrangement of which is not very logical and already shows the liberties taken with the architectural forms which are found so often on later works. On both sides of the semi-circular archway the columns stand on pedestals and carry an entablature which breaks back over the columns. This order is the one shown on our plate. It is very similar to that represented on the former plate, so that both are recognized as being of the same school; the cornice only is an exception, here having dentils after the older Grecian manner.

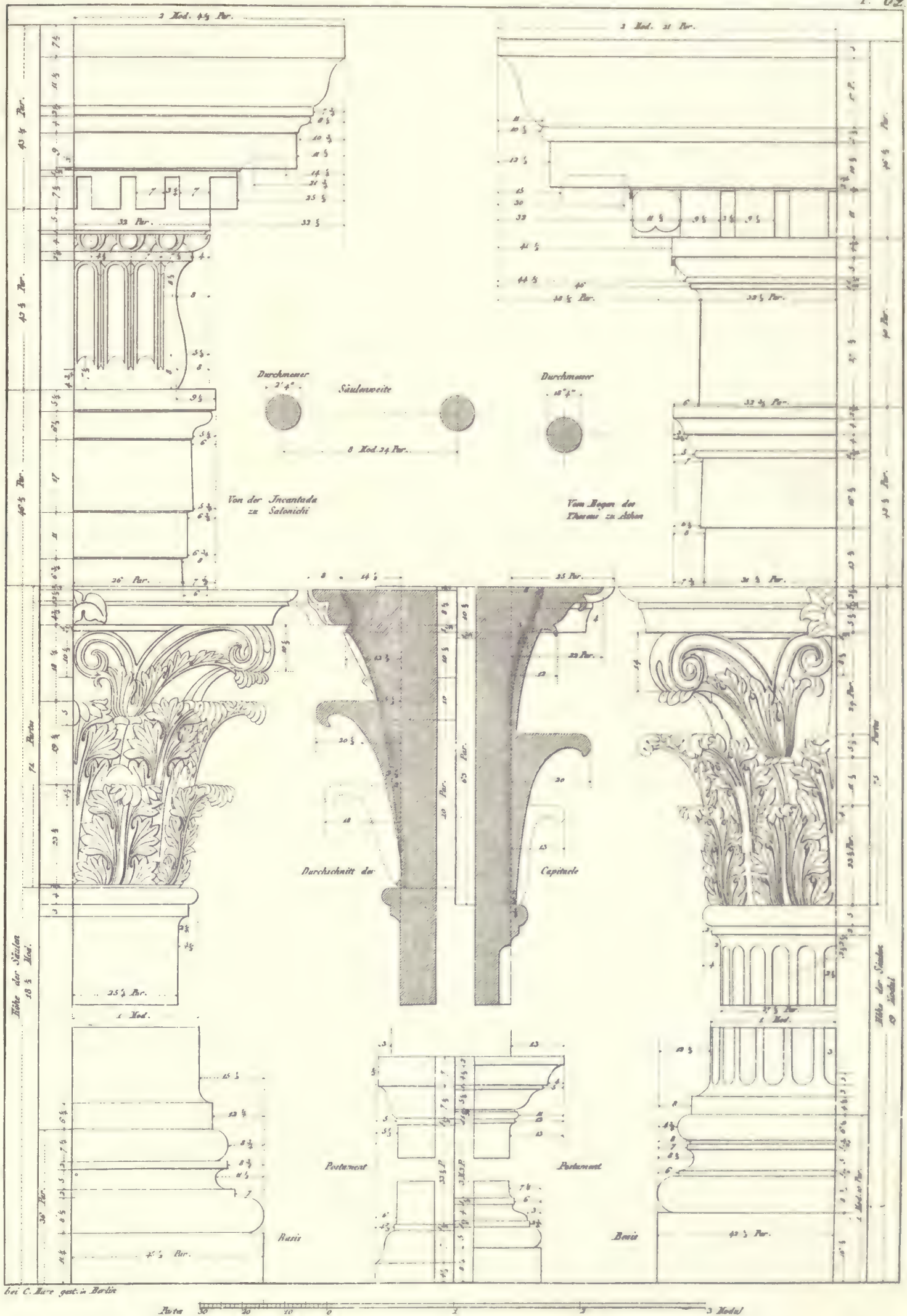


PLATE 63.

FROM THE TEMPLE OF VESTA AT TIVOLI.

With the Romans, the Corinthian order, which they learned from the Greeks, appears at first with the denticular entablature and Attic base as did also the Ionic. Vitruvius also has prescribed in his work the Ionic entablature for the use of the Corinthian order (although he at the same time leaves it to the judgment of the architect); likewise he allows the Doric entablature to be used over the Corinthian columns, but to the credit of the later architects be it said, we know of no example of such a combination. On the contrary we find on the Portico of the Pantheon at Rome (erected about his time) the Corinthian order with an entirely new entablature invented for it, which soon found imitation on the many great structures which were carried out in the Corinthian style by the art-loving Romans. This individuality is mainly through the use of the modillions or consoles under the corona, of which arrangement Vitruvius does not speak. The Romans also brought forth an individual and more membered base for the Corinthian column which, together with the more elaborate entablature, stood in excellent harmony with the richest type of decorated capital. This capital, however, is still to be considered as a modification of the Greek (See Plates 54 and 58), although we find a difference in that the Romans as a rule, beside the corner volutes, also decorated the front with center volutes and instead of the acanthus, often used olive leaves. The details and ornament on the monuments of the best period, from Augustus to Septimius Severus, do not appear in such a simple and logical arrangement as with the Greeks, but with a certain understanding of decorative effects arranged in life-like forms, full of expression and extreme beauty. The works of later times, however, show us a confusion which led to a complete deterioration.

On the rugged cliff overhanging the deep valley in which the river Anio flows we see standing so picturesquely the remains of the admirable Temple of Vesta erected in the time of Emperor Augustus. It was a round Peripteral with 18 columns, of which 10 with the entablature and ceiling together with a portion of the cella wall with the door and one of two windows still remain. Portions of the architectural parts consist of travertine and were covered with a thin stucco, though the wall of the cella is of volcanic material dressed with coarse pebbles on which traces of stucco application can also still be observed. The roof was probably closed with a cupola form. The door and window are given on Plate 93.

The circular foundation, the columns, entablature and ceiling are given on this plate. The columns do not stand perpendicularly, but lean inward, so that the inner line of the taper is almost vertical, whereby the entire structure receives a pyramidal form and gains stability.

The type of the capital is of a different style than the usual; the strong corner volutes under the heavy abacus are formed like ram's horns, and between them is a large lotus flower of much projection. The two rows of leaves below present a character far different than the usual acanthus, being of a curly form* with the edges bent forward. Similar curled foliage is also found on several other Roman and Pompeian capitals. On the plate are given the corner and front views of this interesting capital, and between is a section through the middle of the front. Lower is given a plan through the volutes and one taken at the bottom of the leaves with all parts above shown.

The bases of the columns have no plinths; they could properly be omitted on account of the circular plan of the colonnade. The absence of a scotia between the tori of the base, which otherwise is formed like the attic, gives it a compressed appearance not to be recommended. The beginning of the flutes at the base is peculiar and also not worthy of imitation.

The architrave and frieze are in one piece and reach from column to column, the under surface being a little less than the neck of the column. The frieze is festively ornamented in a vigorous manner. We find here, instead of the scull so often occurring on Roman works, an admirable steer's head with festoons and rosettes. On our plate the order is drawn as a corner; actually, of course, this was not the case, the building being round.

The cornice is of one stone in height, on the rear side of which is worked the ceiling cornice supporting the slabs spanning to the cella wall. In each of these ceiling slabs are two panels, each decorated with a rosette. The inner side of the entablature is shown in the elevation by dotted line. The entablature is, in comparison with others, unusually low, but on account of the strong relief of its frieze decoration, it has a robust appearance.

We find the proportions on this small monument strong, earnest, and elegant. Its erection belongs to the time of the beginning of the Augustan age, and on account of its round form is considered as the shrine of Vesta. Against such an assumption, however, the steers' heads in the frieze seem to offer evidence as no bloody offerings were taken to Vesta.

*The foliage of the capitals seem to have been formed of the *acanthus mollis*.—Anderson, Greece and Rome.

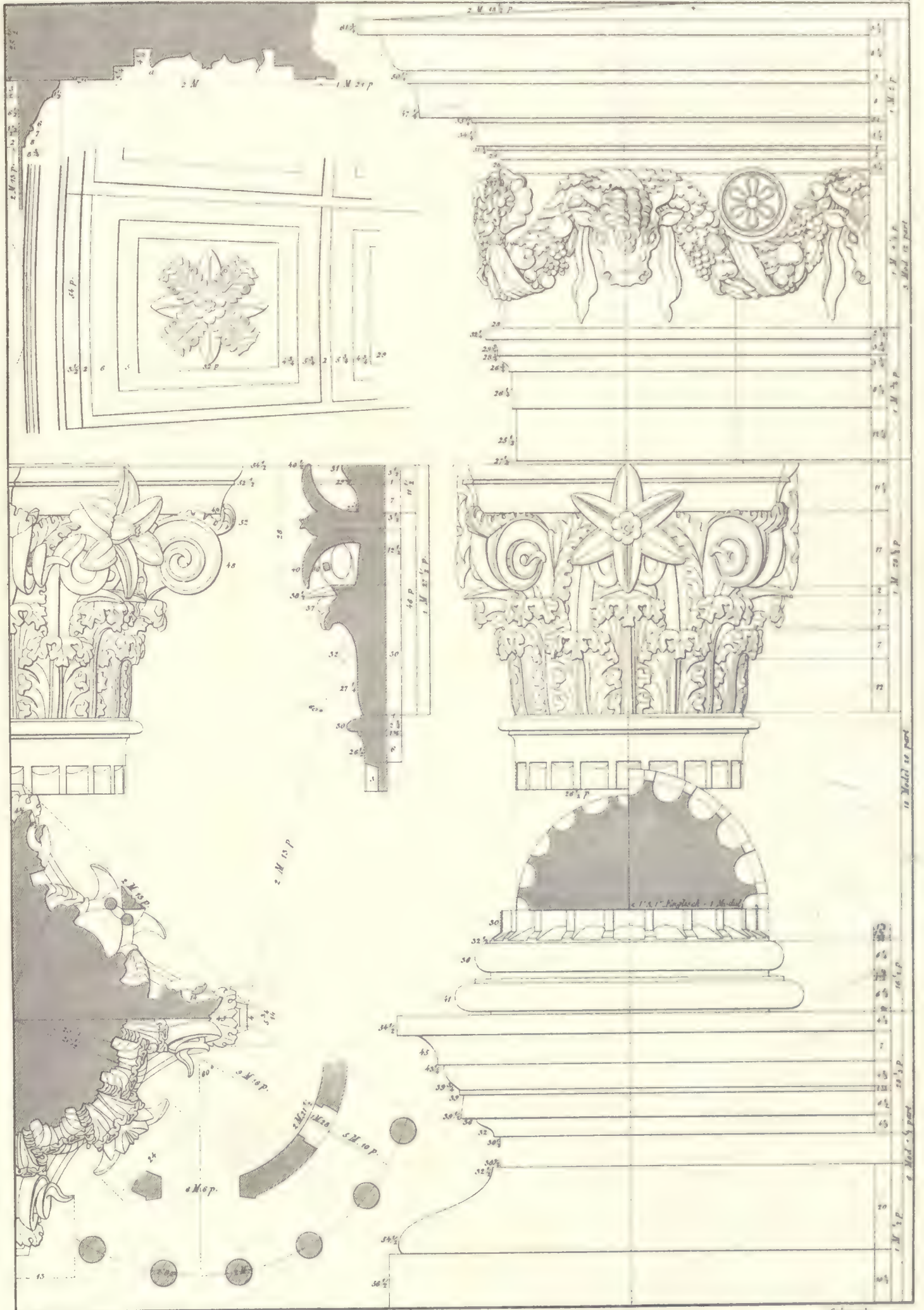
KORINTHISCHE ORDNUNG.

Vom Tempel der Vesta in Tivoli.

ORDRE CORINTHIEN.

Du Temple de Vesta à Tivoli.

T. 63



J. M. Mauch del.

G. H. M. sc.

Partes 50 20 10 0 1 2 3 Modul

PLATE 64.

FROM THE PORTICO OF THE PANTHEON AT ROME.

The Pantheon is the most important structure preserved from the Roman times. It is a round building roofed with a dome and is 54.44 meters in diameter and 44.4 meters high with a rectangular portal entrance. Valerius of Ostia is supposed to have been the architect.

Before the front rectangular wing, stands a portico of 16 Corinthian columns of which 8 stand on the front. Over their entablature is a pediment 7.21 meters high the tympanum of which was ornamented with the battle of Jupiter with the giants executed in gilded bronze. This portico does not seem to have been in the original plan of the building, but according to the inscription on the cornice was probably added by Agrippa.*

Plate 53 gives a view of the column and the pilaster with the entablature at a small scale, the details of which are shown on Plate 64.

The order of this portico has at all times attracted the attention and aroused the wonder of architects and critics, and all agree that this monument in all its relations is to be considered as the finest and the most thoroughly studied. The base of white marble is the Corinthian, also called the composite. At one time, six steps each $6\frac{1}{8}$ inches high formed the approach. The shafts of the columns consist of one piece of polished red spotted Egyptian granite and were not fluted, for the beautiful play of color and the glitter of light on this material would only have been marred by the addition of flutes. The shafts of the pilasters, being of white marble are fluted, which breaks the plain surface suitably and also gives a lighter appearance to the mass. The round bead besides ornamenting the corner also acts as a protection therefor.

The capital is of white marble, and its design represents one of the oldest examples of that style which so often found use on the Roman monuments and was considered as a standard by the later masters, who looked upon all other often very fantastic capitals of the Corinthian style only as degenerate varieties. The latter view however is far from correct, particularly when we consider the different scales of execution, for that which is applicable for the large size of the Pantheon would, for instance, reduced to the size of the small columns of the Tower of the Winds, appear insignificant, while the simple capital of the latter monument would, if enlarged to fit the mighty columns of the Pantheon, appear gigantic and crude.

The leafwork on the capital of the Pantheon is not acanthus, but consists of carved olive like leaves, whose ends are larger and more bent than is found on the capitals of the Grecian works. The pilaster capital is a little more in height than that of the column, probably because it belonged to the older building. The increased height however compensates somewhat for the greater width.

The entablature, also of white marble, in comparison with the columns and their spacing, is of proper relation in all its parts and shows in its ornamentation a certain suppression. In keeping with the unfluted column shafts, the dentil course remains smooth. The member thereover is decorated with the egg and dart. The modillions or beam heads in an entirely individual treatment of the Roman Corinthian entablature, occur here for the first time and in the best form. The soffit of the architrave is shown on Plate 87. The roof of this portico was covered with plates of gilded bronze and the interior ceiling was also once of bronze. In the year 1632 Pope Urban VIII removed these bronzes from which to mould the colossal Tabernacle (by Bernini) of St. Peter's church. The dome lost its bronze covering and its interior decoration in the middle ages. The bronze door, shown on Plates 85 and 93, is however still in place.

*The Pantheon was originally considered to have been built by Agrippa in consequence of the inscription on the portico. But the discoveries made by Mr. Chedanne in 1892 proved that the rotunda was erected by Hadrian 120-124 A. D., and that the portico was partly built of the materials of Agrippa's Temple, which was taken down at a later period, and raised to form the entrance portico of the Pantheon. (See Anderson's *Architecture of Greece and Rome*).—ED.

BASIS, CAPITÄEL UND GEBÄLK KORINTHISCHER ORDNUNG von der Porticus des Pantheon zu Rom.

T. 64

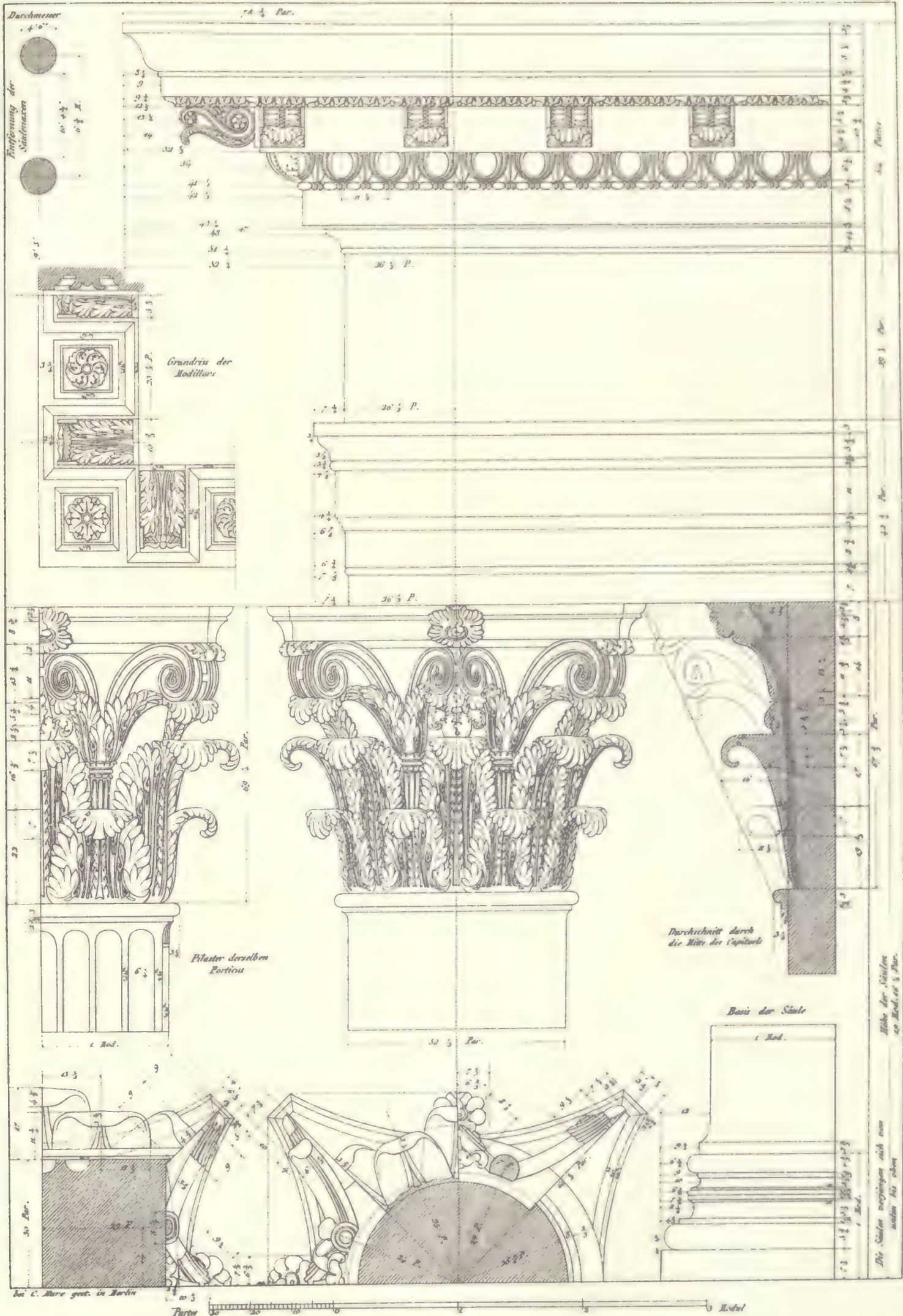


PLATE 65.
FROM THE INTERIOR OF THE PANTHEON.

The interior consists of a cylindrical hall roofed with a half circular dome, and is 43.05 meters in diameter and 42.7 meters in height. It is lighted from a circular opening in the top of the dome 8.6 meters across. Eight large niches or chapels are formed in the 20 foot thick encircling wall. Over six of these niches is an entablature supported by two columns between antæ which form the subject of our plate. The entrance niche and the one opposite are without columns being arched over. Presumably all were constructed in this manner. Above the level of the niches and supporting the dome is an attic with a small pilaster treatment. In front of the space between the niches are Tabernacles, which will be considered at Plate 85.

The Corinthian order from the interior of the Pantheon is not much different as a whole from the order of the portico. The pilaster and column shafts are fluted, the shafts of the latter being of Punic marble and the flutes partly filled two-thirds their height from the bottom. On the columns next to the niche opposite the entrance which alone seem to be in their original location, are fine round beads on the fillets between the flutes similar to those on the upper part of the Eretheum columns (Plate 34). On this plate we show both style of flutings of the shafts of the Pantheon. On Plate 88 are shown other details of the flutes as well as the entasis of the shaft of this order.

The capitals of the pilasters, indicated in outline, are actually executed the same as the pilaster capitals of the portico shown on the former plate. On the entablature most of the vertical surfaces lean backward and the bottom surfaces slope downward which brings out a good value of light and shade. The corona is strikingly weak and the cyma over is of a strong projection, not especially harmonizing with the dentil member. The soffit of the architrave is found on Plate 87.

T 05



PLATE 66.
FROM THE TEMPLE OF JUPITER STATOR.

Near the original principal forum at Rome, and near the ruins of the Basilica Julia, stand three columns, with a portion of the entablature, from the peristyle of a Corinthian Peripteral Temple of 8 and 13 columns. These three columns are from one of the long sides and stand on a common foundation of 6.28 meters in height. For a long time they were considered as the remains of the Temple of Jupiter Stator, or Castor and Pollux. The later explorations, however, have established these ruins to be of the Temple of Minerva, which was erected of Pentelic marble by Domitian about the end of the first century A. D.

The scant remains indicate the majesty and beauty with which the entire structure was clothed. The architecture is of great originality, not overloaded, and of noble proportions and exquisite execution.

The leafwork of the capital has more spirit than that on the Pantheon. The volutes are larger, of splendid form and more decorative, those in the center being entwined. Out of the stem from which they spring also grows a fine ornament which spreads itself on the surface of the abacus.

The entablature as a whole is of strong proportions and still not heavy, while the details and ornamentation, of admirable character and relation, are arranged with a fine balance and the dominating members stand in excellent harmony with one another. In order that the wide corona should not appear too massive, it is decorated with an upright row of leaves which actually remind one of the Roman name of this member, corona. The dentil member is here divided into dentils. The minor mouldings are considerably subordinated, and enriched with rare taste. The flower band decoration of the middle fascia of the architrave seems out of place. The soffit of the architrave is found on Plate 87.

GEBAÜK, BASIS UND CAPITÄL DER KORINTHISCHEN ORDNUNG Vom Tempel des Jupiter Stator auf dem Kufelfelde zu Rom

T. 66

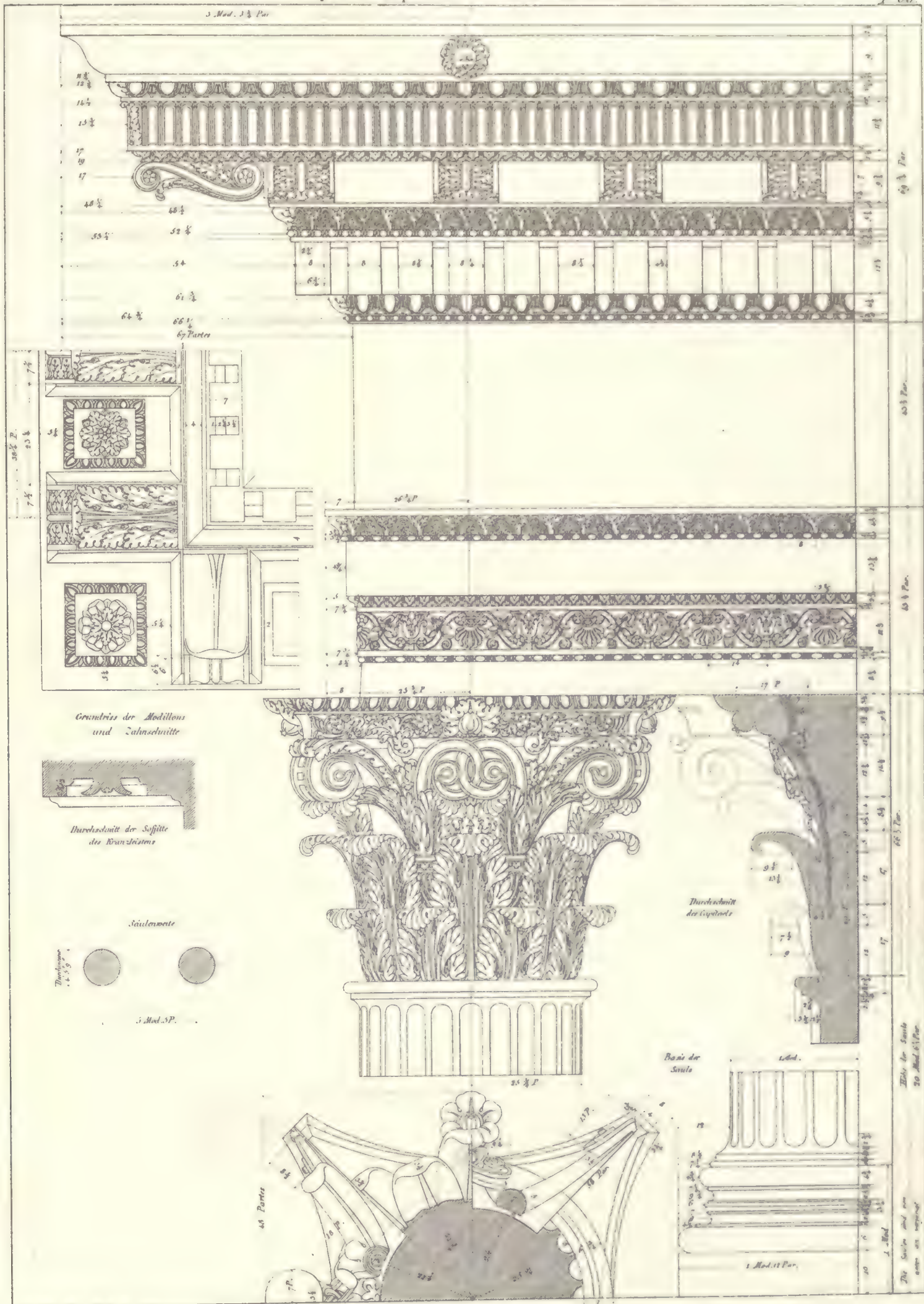


PLATE 67.
FROM THE FORUM OF NERVA AT ROME.

This Forum of Nerva consisted of a great columned court with a Temple of Minerva on the interior and a Janus arch of four gates, and for this reason was also called Forum Palladium. The columns extended along the court wall and carried an entablature with an attic above. Only two of these columns remain, buried half in the ground. The order has, with the exception of the rich decoration, a similarity to the Pantheon, though the egg and dart moulding over the dentils is unusually large, and the corona is too weak as compared with the cyma thereover. In the front of the projecting entablatures the centers of the modillions are to be spaced in accordance with the dotted lines A. A. A.

The soffit is found on Plate 87. The reliefs in the frieze represent Minerva as the founder and teacher of feminine arts, but are so very much damaged that their original meaning can only be presumed.

T. 67



PLATE 68.

FROM THE TEMPLE OF ANTONIUS AND FAUSTINA AT ROME.

This was a six-columned Prostyle, the column shafts of which were of cipollino (marble), the balance being constructed of white marble. This Temple was dedicated 141 A. D., by Antonius Pius in honor of his wife Faustina, after his death, however, it was dedicated to him. With the exception of the attic base, the column is a copy of those of the Pantheon, though the entablatures are only in general, similar in proportion. The architrave has only two fasciæ. The soffit is found on Plate 87. The corona is of a heavy proportion, wide projecting, and without the usual supporting modillions. It is to be regretted that the fine sculptures of the frieze are dwarfed by the bold egg and dart and the corona. Instead of the leaf-wave usually over the frieze we see here a cymatium decorated with acanthus and anthemion.

018



PLATE 69.

FROM THE TEMPLE OF JUPITER TONANS, ALSO DEDICATED AS A TEMPLE OF SATURN.

This Temple stood at the foot of the Capitol at Rome. It was at first erected by Augustus, and later, at the end of the second century A. D., restored by Septimus Severus. Only three columns, still carrying a corner of the entablature, are standing. They are of Carrara marble. All the splendor of the times is here manifest. The abacus of the capital is weak and overloaded with ornament, but the architrave and frieze worked out of one piece are excellent, and belong presumably to the original building. On the front, laying over both frieze and architrave, is a panel with an inscription which appertained to the restoration. The word ESTITVER alone remains. On the other side we see in the frieze a beautiful relief of offering utensils. The very rich soffit can be found on Plate 87.

The cornice consists of the usual divisions, but not in good proportions, all overloaded with decorations, even the surfaces between the modillions being given no rest.

In the third row of Plate 89 is shown the egg and dart moulding under the dentils.

The cyma is no longer in existence,

T' ou.



PLATE 70.

FROM THE FRONTISPIECE OF NERO AT ROME.

The few but colossal remains, known under the name of the Frontispiece of Nero, which are found in the garden Colonna at Rome, presumably belonged to the Temple of the Sun which Aurelian caused to be erected in the second half of the third century, A. D.

The Temple was built of white marble and displayed great beauty. The pilasters are exceptional in so much that their shafts diminish the same as the column shafts; their capitals are unusually high, and the lower row of leaves thereon consists of three whole leaves, instead of two, the row above of two leaves, and above them is one leaf under the center volutes. Half of this pilaster capital is shown on the plate and its main divisions given in outline. The column capital is no more in existence and it is restored, on our plate, after the pilaster capital.

The entablature has strong and pleasing proportions and excellent ornamentation. In its main divisions it is similar to the entablature of the so-called Temple of Jupiter Olympius in Athens (see Plate 61).

T 70



PLATE 71.

FROM THE TRIUMPHAL ARCH OF CONSTANTINE AT ROME.

This arch consists of a principal central passage and two smaller ones on each side. Between these passages, and on either side of the smaller ones, are free standing columns on pedestals. Breaking out over these columns is an entablature, above which stand statues, and behind them arises an attic which, however, is not now crowned with a bronze quadriga.

In the erection of this arch, which occurred in the fourth century, A. D., the parts from one of the Trajan Arches were in a large measure used, and the arrangement of the latter was presumably retained also. The Arch of Constantine is indebted to this circumstance for its fine proportions. The details, however, are of very different values. The column shafts are fluted similar to those in the interior of the Pantheon (Plate 65). The capital is excellent, but cuts into the architrave in a very awkward manner. The latter is plain in comparison with the cornice. The cymatium of the modillions, as also that of the frieze, is extremely large, and the corona is thin, especially, as it is without a cyma. The omission of the latter, however, logically is not faulty, as there is no actual constructive motive for it, there being no roof but an attic above, a similar condition as occurs on the monument of Thrasyllus (Plate 17). But as a crowning to the entablature, a cyma seems necessary.

The impost cornice of the large arch is good (see Plate 86), but the heavy bead thereunder does not seem to have been on the original cornice. The impost cornice of one of the small arches (shown on Plate 86) is profiled without much feeling, and gives a further illustration of the decline of the art in the time of Constantine.

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PLATE 72.
FROM THE TEMPLE OF MARS ULTOR AND FROM THE BASILICA OF ANTONINUS,
BOTH AT ROME.

As the erection of the great Temple dedicated to Mars Ultor falls in the age of Augustus, our consideration of the same should really have followed after the Pantheon, but as its order is no more preserved in its entirety, we consider the portion yet existing, here at the end of our discussion of the monuments in the Corinthian style.

Three columns and a pilaster with one-third their length buried in the ground, and the architrave and frieze thereover, all worked out of white marble, are the only parts that have been preserved. The capital, ornamental and strong, is even as commendable as those of the Pantheon. The leaf-heads have a large mass, and the leaf-laps are pointed with only four olive leaves, those on the lower part of the leaf-urn from which spring the volutes, having but three. The architrave is also excellent and of a purity not excelled by any Roman example, and seems to have answered as a model for Vitruvius. It is to be regretted that the remaining portions of the entablature are no longer in existence.

The second example from the Basilica of Antoninus is of a Corinthian order of later times. The capital no longer has those excellent proportions; the second row of leaves is too high, and the volute and the abacus are too weak and too far overhanging. The architrave is commendable. The frieze has a swell, which was either intended for carving or was used as the most economical method of filling in a plain surface. At the time of the decline this unnatural method was often resorted to. The soffit is shown on Plate 87.

7. 22



PLATE 73.
CORINTHIAN ORDER BY PALLADIO.

Now that we have considered the Corinthian style in the remains of most of the monuments of Greece and ancient Rome, and have discussed the manner in which the architects of the classic period understood its application, we will consider in the following plates the manner in which the noted architects, in the century of the regeneration of the fine arts, represented this order. It is to be noted, however, that they were familiar with only the Roman monuments which they followed, and had not access to the far distant Grecian examples. The latter fact is much to be regretted, for what would they not have developed out of this fountain of art!

Palladio, whose order is shown on Plate 73, has given his column a height of only $9\frac{1}{2}$ diameters, and his entablature consists of only 1-5 the height of the column. In comparison with both, he has made his capital too high. The profiles of the impost and of the pedestal appear to be by another hand. They are much too heavy even when one considers that the lower members must show more stability.

The base is formed after the Attic, with the addition of a bead over as well as under the scotia, an unpleasing repetition. As his columns are shorter and stouter, he could make the intercolumniation greater.

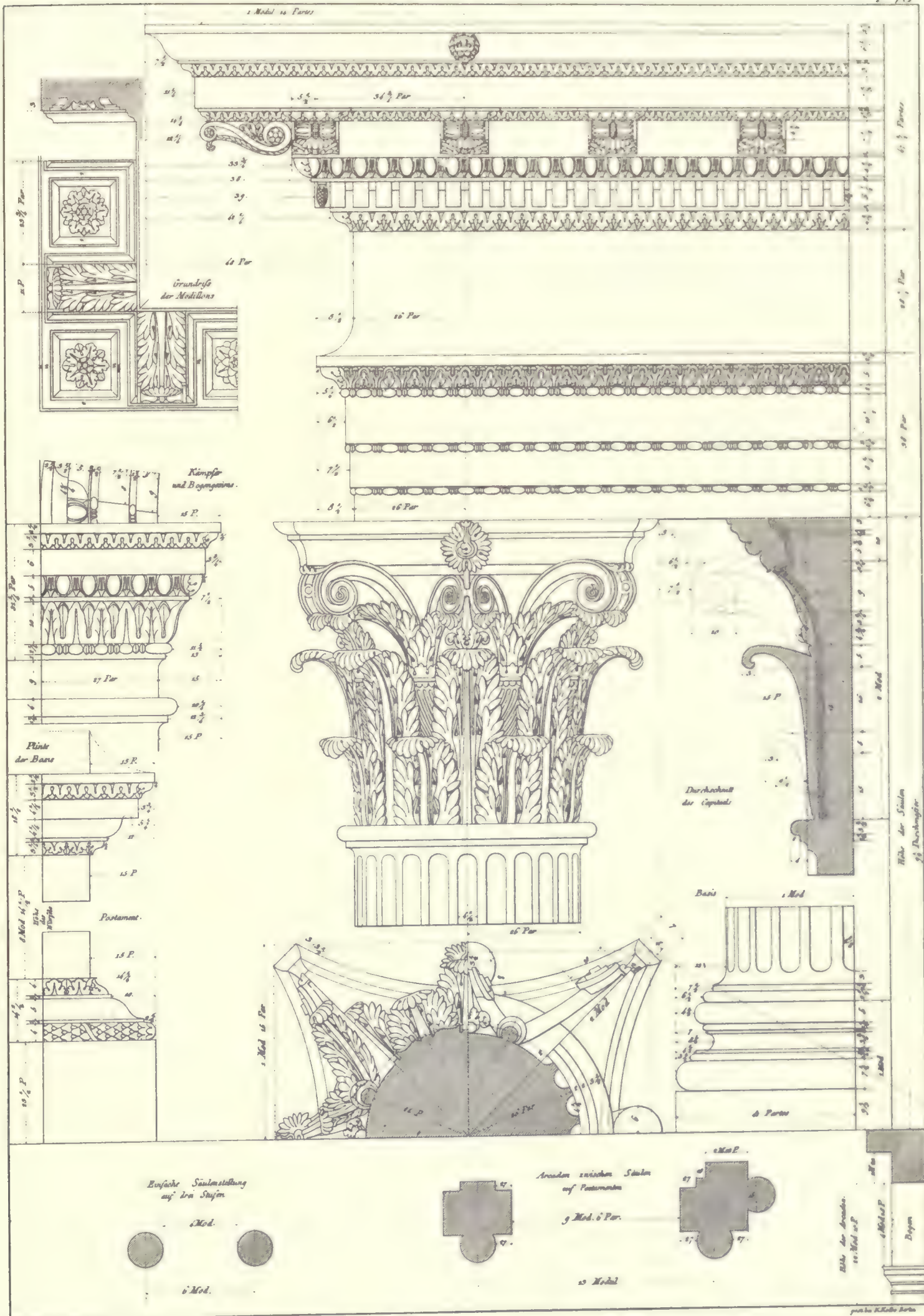


PLATE 74.

CORINTHIAN ORDER BY SCAMOZZI.

Scamozzi's entablature has not a clean profile. He seems to have disdained to follow his models, and even where he approaches them, he has made changes. His modillions are entirely robbed of light value by the far-projecting corona. Instead of the dentils, he has used heavy mouldings, which appear as if they were tumbled over one another. His architrave is profiled very weakly. As a whole, this man has not enjoyed a very great following.

The impost and arches are found on Plate 76.

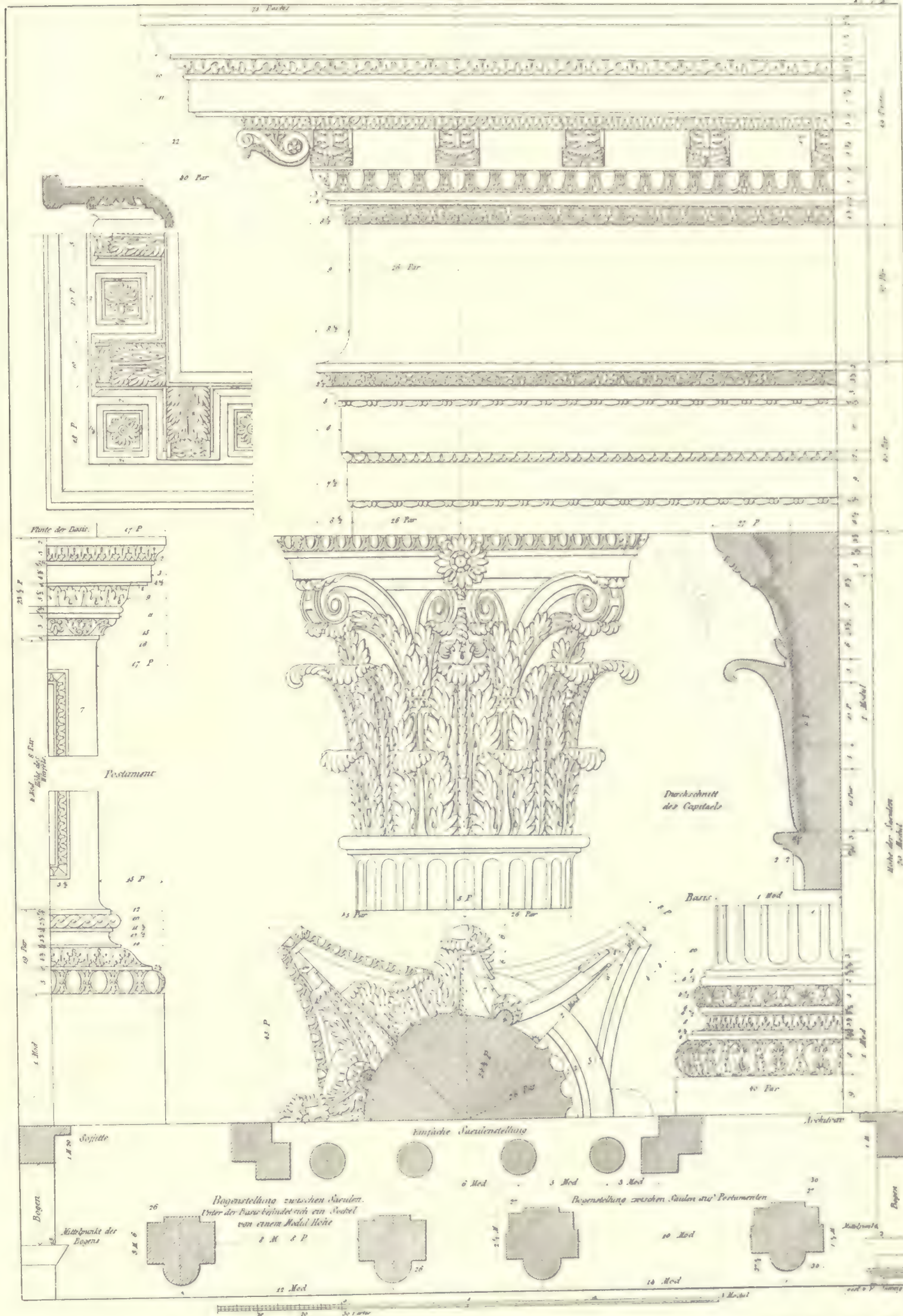


PLATE 75.

CORINTHIAN ORDER BY VIGNOLA.

Vignola's profiles are not always in the spirit of the antique. The fillets of the cornice and over the large cymatium of the architrave could be a little heavier. The moulding over the dentils should be smaller. Vignola has here followed the ancient examples on which nearly always this moulding, in comparison with the cymatium of the frieze, was too large. It could also be desired that the projection of the cornice was less by two parts (after his 18 part scale) for thereby the coffers in the soffit of the corona would be nearly square, which is the most natural form for them. This reduction, which would also have to be taken from the modillions, would not derange their spacing, nor the arrangement of the other members. The other profiles are of good form, and have found many imitators.

His capital would gain gracefulness if the leaves of the second row had less projection and less height. Vignola himself says that he considered the opinion of the different authors (who were seldom, however, of the same opinion) as also the antique monuments, which latter, without doubt, were by different authorities. As he found, however, that all differed considerably in their principal relations, he knew of no other way than to set a fast rule, and so finally from the different elements he formed an original whole.

We have much to be thankful for on account of Vignola's researches, but a great misuse of his orders has been made, inasmuch as they have been blindly followed without regard to mass or proportion, and for this reason have come to be considered as standard, the source from which they were originated having been entirely forgotten. A comparison of Vignola's order with the examples of the monuments which have been heretofore described, will show the variations, and will lead to a study of the latter examples, the results of which will be much more beneficial than a further discussion.

The forms and names of the principal members are the same for all the orders, and as they differ only in their connection with one another, we will omit repetitions and will give here only the names of the members and ornaments characteristic of the Corinthian order.

Names of the Members of the Corinthian Order.

THE CORNICE.

- A. Cyma with Lionheads for Spouts.
- B. Modillion.
- C. Modillion, side view.
- D. Band whereon Modillions are placed.
- E. Pineapple.

THE FRIEZE.

- F. Frieze with Bas-reliefs.

THE ARCHITRAVE.

- G. Architrave with Fasciæ separated with ornamental Mouldings.

THE CAPITAL.

- H. Abacus.
- I. Flower or Rosette.
- K. Volute.
- L. Small or Center Volute.

- M. Leaf and Stalk.

- N. Leaf head supporting Volute.

- O. Greater Leaf.

- P. Smaller Leaf.

- Q. Bell or Basket.

- R. Rim of the Basket.

- S. Flower out of which springs the Stalk (back of small Volutes) which supports the Rosette.

- T. } Sections of the Capital.
- U. }

- V. Plan of the Volute.

- W. Plan of the Rosette Block.

- X. Plan of the Leaf and Stalk from which the Volute springs.

- Y. Plan of the Abacus.

- Z. Plan of the Leaves.

POSTAMENT BASIS, CAPITAELE UND GEBÄLK DER KORINTHISCHEN ORDNUNG

Von J. Barozzio von Vignola

T 73

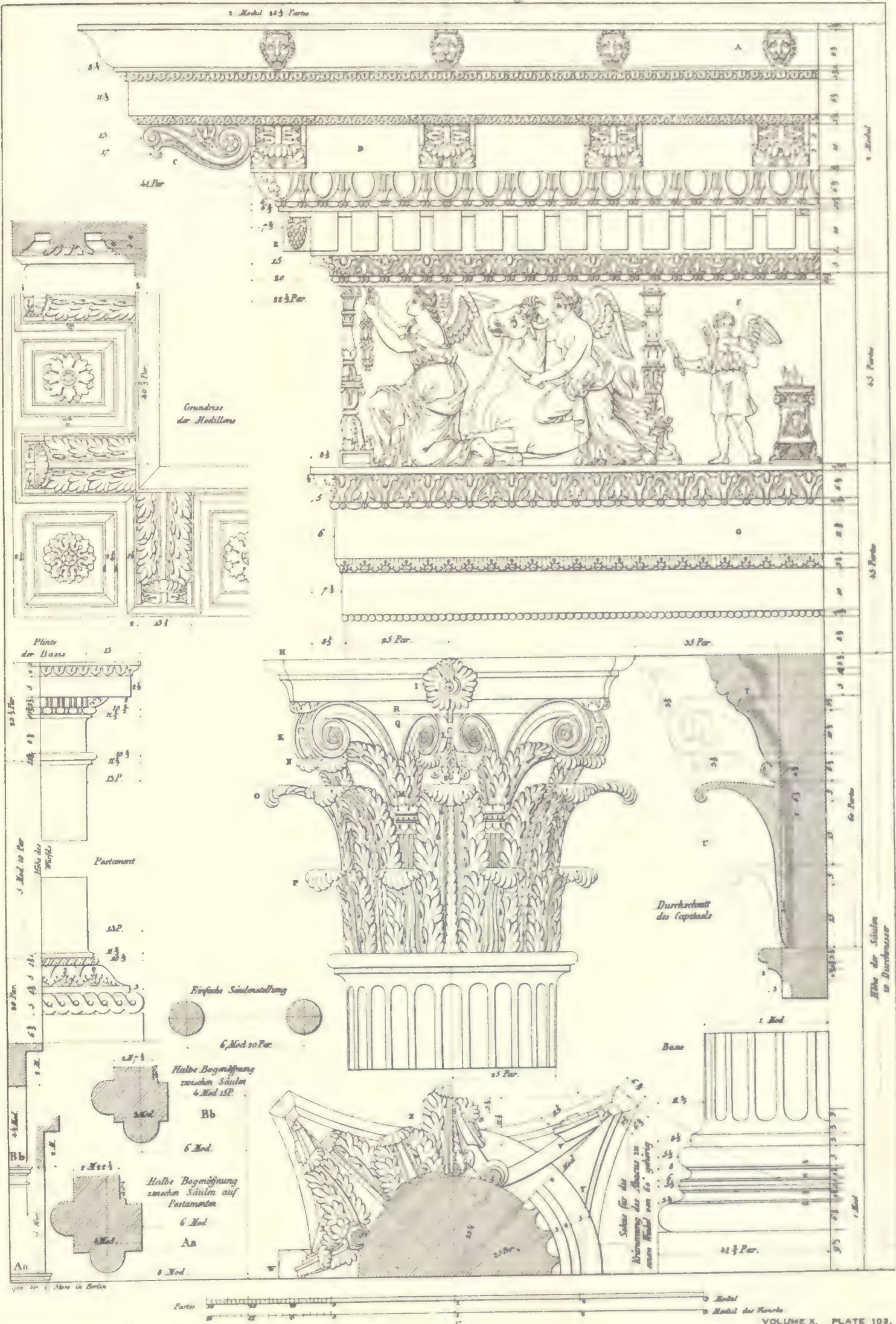


PLATE 76.

CORINTHIAN ORDER BY SERLIO AND ALBERTI.

Both of these orders are practically the same in their principal parts. Their columns and entablatures are lower than all of the examples before considered; even lower than with Vitruvius, and with a certain refinement which is not to be condemned. Only the capitals follow the usual proportions as to height. Serlio has borrowed from the Ionic, his entablature, the cornice of which here projects too far, and is of unpleasing profile.

Alberti, who has applied his modillions at the cost of the corona, has authority for it in some antique, though not exemplary, examples. The wide modillions with no cymatium seem as if they were only pasted under the continuous ogee moulding above. Withal, his very low entablature does not altogether express the ability of those masters from whom it was copied.

One will notice that the capitals of the later masters have an entirely different appearance from the antique Corinthian, because they followed Vitruvius, who divided the space between the astragal and the abacus into three equal parts, whereof the two first were for the two rows of leaves and the third was for the volutes and flower stems. With the antique capitals no rule of this kind is found; the division for the second row is almost always shorter than for the first. The same difference is also found with the composite orders now following.

70

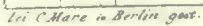


PLATE 77.

FROM THE TRIUMPHAL ARCH OF TITUS AT ROME.

All deviations from the Corinthian order, as laid down by Vitruvius, and with which we have become familiar by the consideration of the previous plates, are usually placed under the title of a composite order. The fantasy of the old masters allowed themselves a large number of such variations in which, however, the basket and cover, the basic principle of the Corinthian capital, were retained. The Grecian capitals on Plates 54, 58, 59, and 60 furnished the Romans the best patterns. Another example is the pilaster capital of the attic of the interior of the Pantheon (Plate 85). But they did not strictly adhere to their models; they often decorated and overloaded their inventions with representations of men, animals, weapons, etc.

Only those orders whose capitals seem to be composed from the Ionic and Corinthian will we consider here, because they are preserved on the ancient monuments; namely, on the Arch of Titus, the Arch of Septimius Severus, and the Baths of Diocletian. These afterwards gave the motive for the origination of the so-called composite orders of Palladio, Scamozzi, and Vignola.

The Arch of Titus shown on Plate 77 has only one passage, with two half columns on each side of the same. These stand on pedestals and carry an entablature above which arises an attic. The capital of the columns belongs to that composite style which occurs in Rome on many examples, and which later was called "The Roman," half Ionic and half Corinthian. These capitals do not possess either the refinement of the one or the decoration of the other; but, notwithstanding, are not without a certain gracefulness and charm. The example from the Arch of Titus seems to have been the first which was composed in this manner, but it has not been surpassed by any of the later imitations.

The Corinthian entablature of this arch has, however, too fine members in comparison with the mighty and conspicuous volutes of the capital. The modillions under the corona have, instead of the usual acanthus which apparently carries the rolled up fascia, a pair of entwined dolphins over a shell.

POSTAMENT, BASIS, CAPITAE UND GEBÄLK DER ROMISCHEN COMPOSITEN ORDNUNG Vom Triumphbogen des Titus zu Rom

77

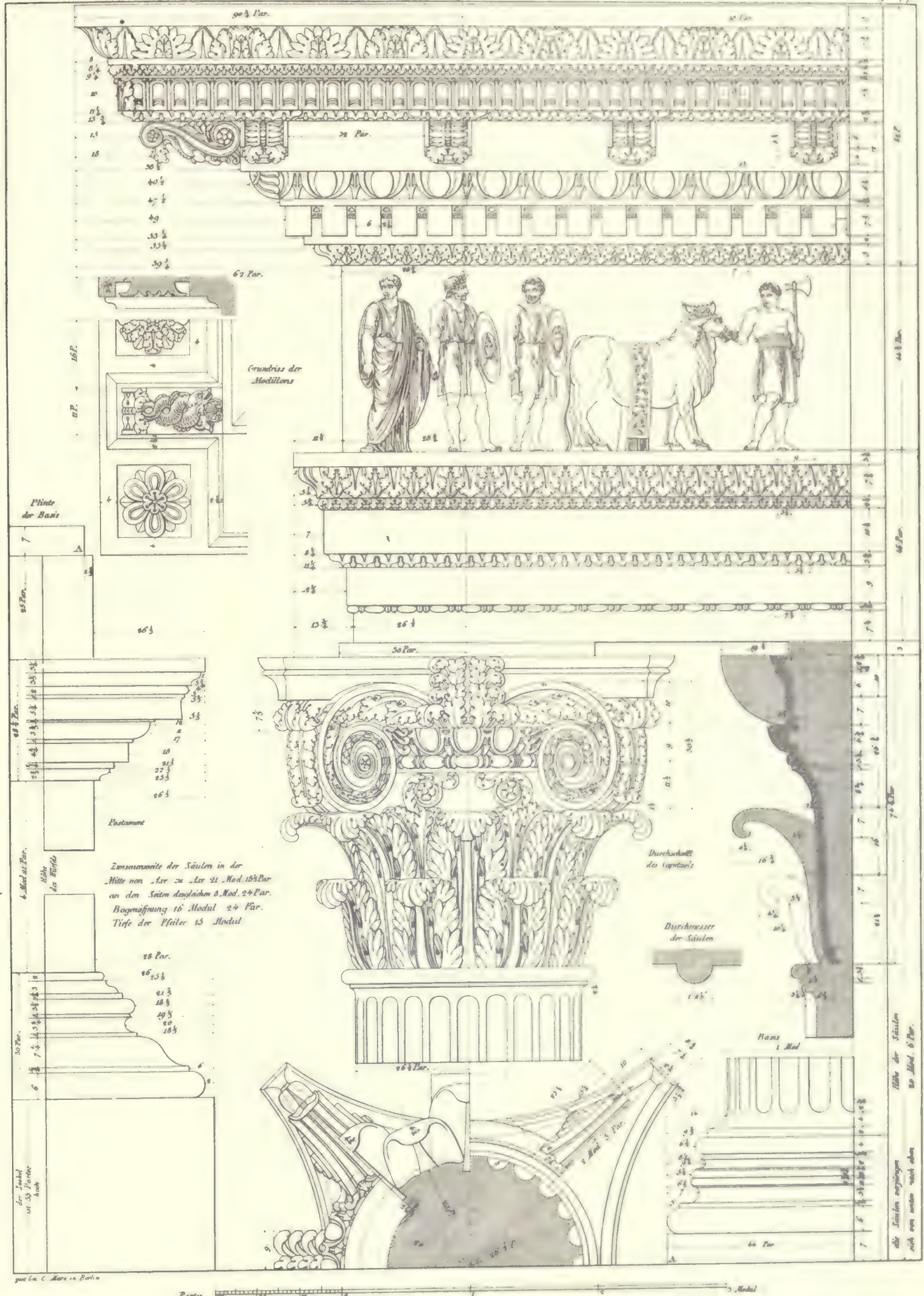


PLATE 78.

FROM THE TRIUMPHAL ARCH OF SEPTIMIUS SEVERUS AT ROME.

The entablature of this Triumphal Arch is different from the Corinthian or Ionic, and even though it has something from both, it has, however, a character of its own, and, together with the capital, can be counted as a further order of the Romans. The cornice which has a distinct character, demands a somewhat greater projection of the corona. The frieze, on account of its scant height, appears smaller than the upper fascia of the architrave, which, in comparison with the lower fascia, is very strong. A greater space between the dentil member and the corona and a better relation of the frieze and architrave would probably improve the whole.

The capital has a pleasing form, but it appears as though the later masters have given preference to that on the Arch of Titus, because on the latter the volutes start in a much more natural manner.

The impost cornices, with the archivolts and the attic, are represented on Plate 86.

T. 78



PLATE 79.

FROM THE BATHS OF DIOCLETIAN AT ROME.

In this class of buildings was unfolded by the Roman Emperors their great love for beauty and art; paintings, statuary, and ornament of all kinds were here united in extravagance, but always arranged with rare taste.

Our order is from the great hall of the Baths of Diocletian, wherein one notices the peculiarity that, of the eight columns with which it is decorated, the four which stand in the corners are Corinthian, while the others are Composite. These columns are very slender, being nearly $10\frac{1}{2}$ diameters high, and for that reason are similar in proportion to the corner columns on the Vesta Temple in Rome. The very decorative entablature, with the exception of the small secondary corona supported by the modillions, is to be considered as Corinthian; but the Composite capital, which we have already seen under a similar entablature (Plate 77) has given the reason for its discussion here, and particularly because the examples thereof are not numerous, and this capital by its decorative abacus gives us another variety. The abacus also springs far out over the small volutes, and the leaves lie closer to the bell than is usually the case.

The capital is slender, and is composed of two rows of acanthus leaves, with a low Ionic column capital thereover. The leafwork here is more natural than on the Titus example, and the points are similar to the leaves of parsley.

The lower corona is ornamented on the soffit. Criticism is to be made of the enrichment on the cyma insomuch that the elements have a downward movement in some parts, which is against the principal of the cyma.

BASIS, CAPITEL UND GEBÄLK DER COMPOSITEN ORDNUNG
Vom grossen Saale der Thermendes Diocletian in Rom.

T 79

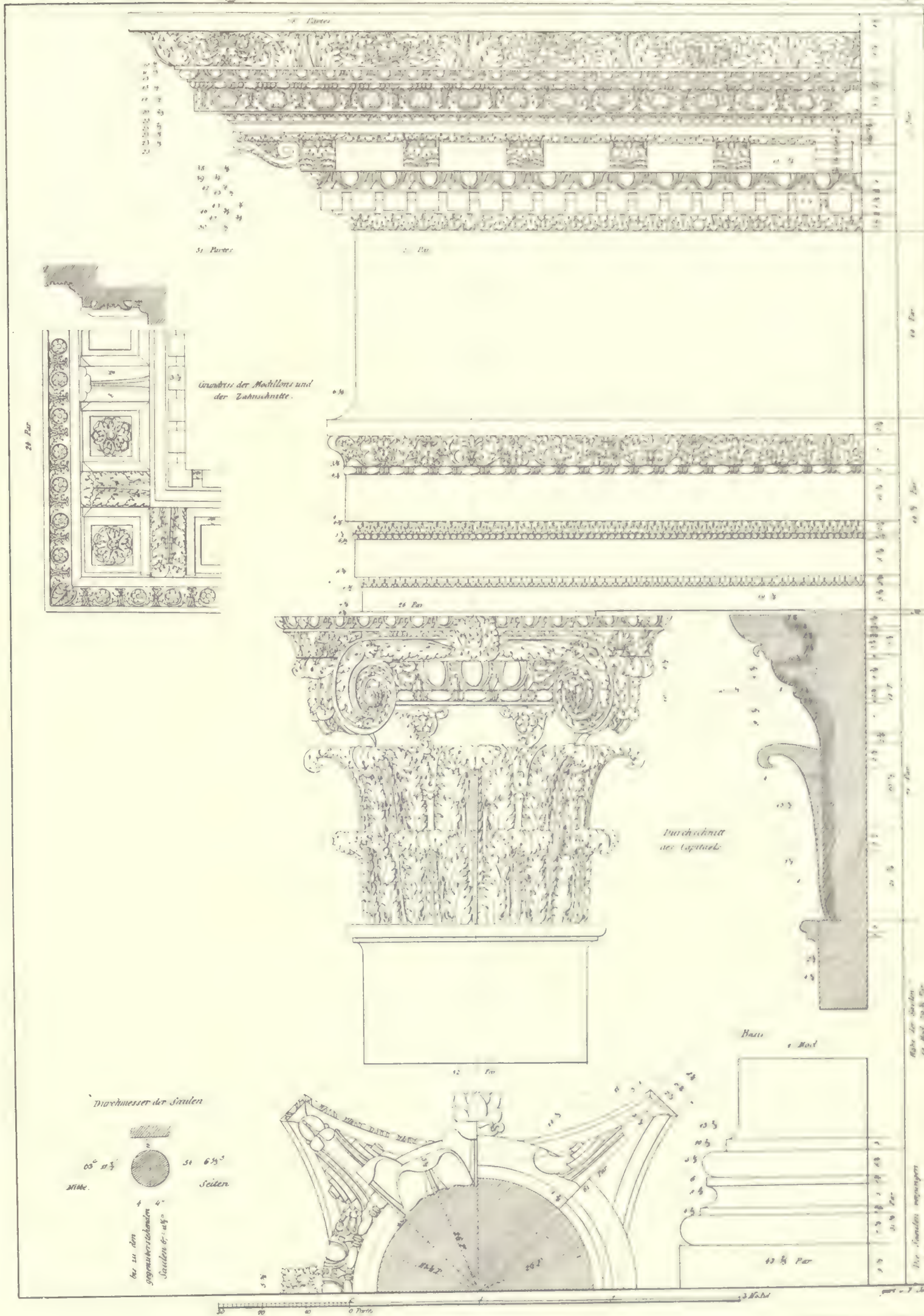


PLATE 80.

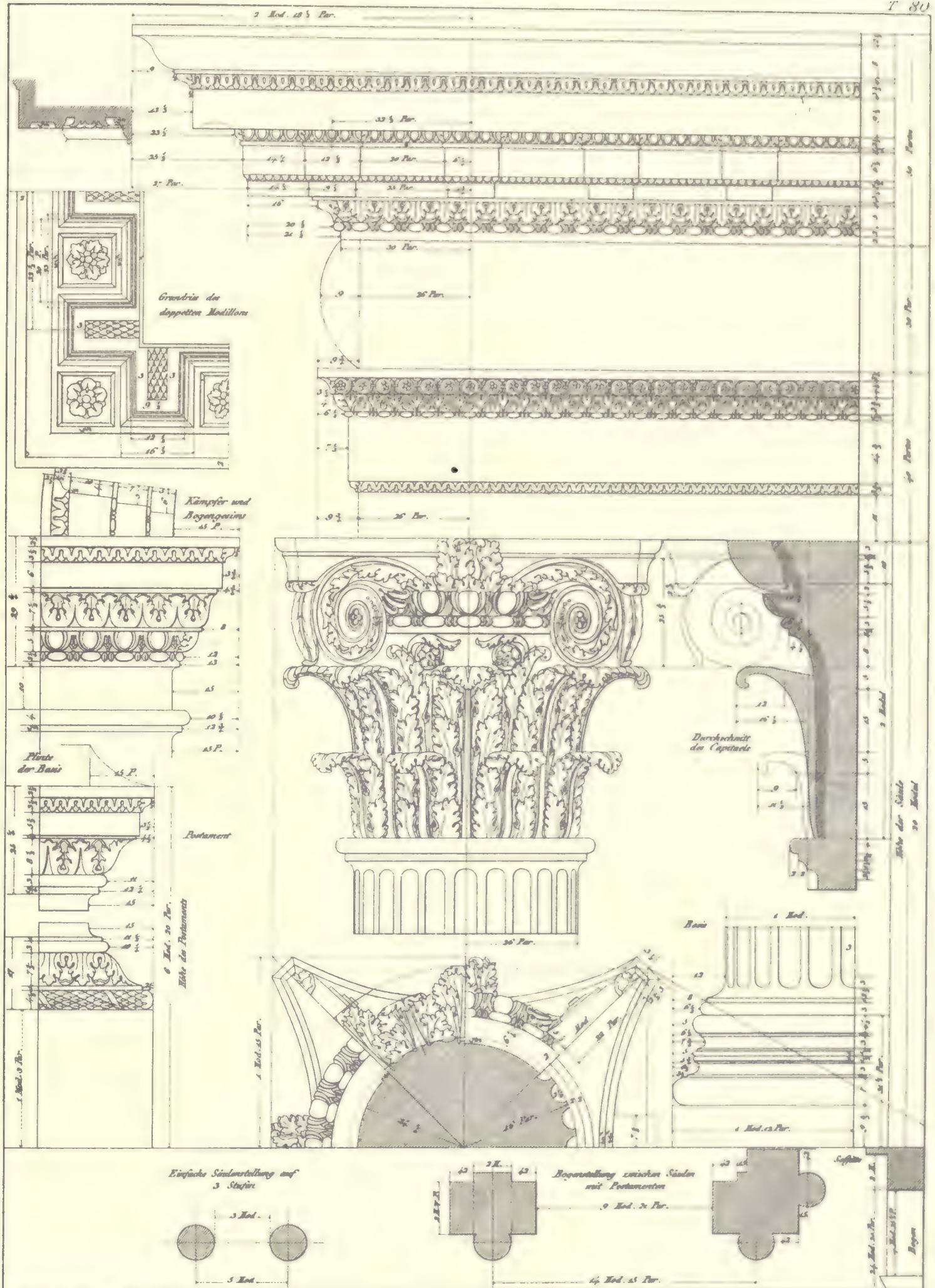
COMPOSITE ORDER BY PALLADIO.

The Italian masters of the sixteenth century, besides reviving the interest for ancient art, also lent their ingenuity to the making of rules for the orders of architecture, and they may particularly receive glory from the fact that to those orders described by Vitruvius they have added a fourth, namely, the so-called Composite or Roman. The excellent examples just considered contain much material and many suggestions for the composite order which Vignola has worked up in the best spirit. This success afterwards led numerous architects of other nations to attempt to originate other orders as the French, the German, etc., which, however, in all cases, led to peculiar combinations. Traditions were swept aside, and with ruthless fantasy was brought forth a mass of composite capitals, twisted and coupled columns, broken pediments with cartouches, swags, festoons and flourishes without reason, which were particularly admired in France. Since Stuart's most valuable work on the monuments of the Greeks became known, however, a deeper insight into the spirit of ancient art was obtained, and it is hoped will prove lasting.

Palladio seems to have composed his entablature after that of the so-called Portico of the Temple of Jupiter Olympius at Athens, or after that of the Frontispiece of Nero at Rome. The swelling frieze, which projects about four parts at the top, is not to be recommended for purity, even though it can easily be seen that he has only used this as an expedient to obtain the necessary equal spacing for the end modillion, one being placed on the axis of the column.

POSTAMENT BASIS CAPITAE UND GEBÄLK RÖMISCHER ORDNUNG nach Andreas Palladio.

T 80



Grav. bei C. More, in Berlin

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PLATE 82.

COMPOSITE ORDER BY VIGNOLA.

Vignola, without doubt, has succeeded best of all in grasping the spirit of the Composite order, when we consider the entablature from the Triumphal Arch of Septimius Severus as the model, for this order was nothing more than an enriched Ionic. Although imitating the antique monuments Vignola has given his order more regularity and practicability, and has arranged the whole in such a manner that it was given preference by the other masters of that time in which the composite style enjoyed a certain popularity.

Instead of the heavy member under the cyma, found on the Arch of Severus, Vignola has, on his order, placed that which is found over the dentils, and he has given a more pleasing form to the drip in the soffit of the corona.

The members of the base, pedestal and impost, as they are nearer to the eye are skillfully arranged and are in keeping with the higher parts. In execution, the members nearer to us and belonging to the lower masses, as the pedestals, bases, and imposts, do not require such heavy parts as does the entablature, which is always at a greater height and requires a different scale.

His composite capital, however, is no improvement over his Corinthian. The leaves here also project to a line drawn from the astragal to the diagonal corner of the abacus, as also do the volutes, which necessitates the latter to be drawn back too far under the abacus, and on account of their large winding they crowd the echinus of the basket. All this gives the upper members of the capital a pressed, stiff, and heavy appearance.

Names of the Members of the Composite Order.

THE FRIEZE.

- A. Frieze with Enrichment.
- Aa. Drip under the Corona.

THE CAPITAL.

- B. Volute.
- C. Leaves
- D. Flower.
- E. Plan of the Volute.

- F. Plan of the Flower Block.
- G. Plan of the Leaves.
- H. Plan of the Flower.
- I. Plan of the Shaft and Flutes.
- K. Side view of Volute.
- L. Bell or Basket.
- M. Line to which Volutes and Leaves are projected.

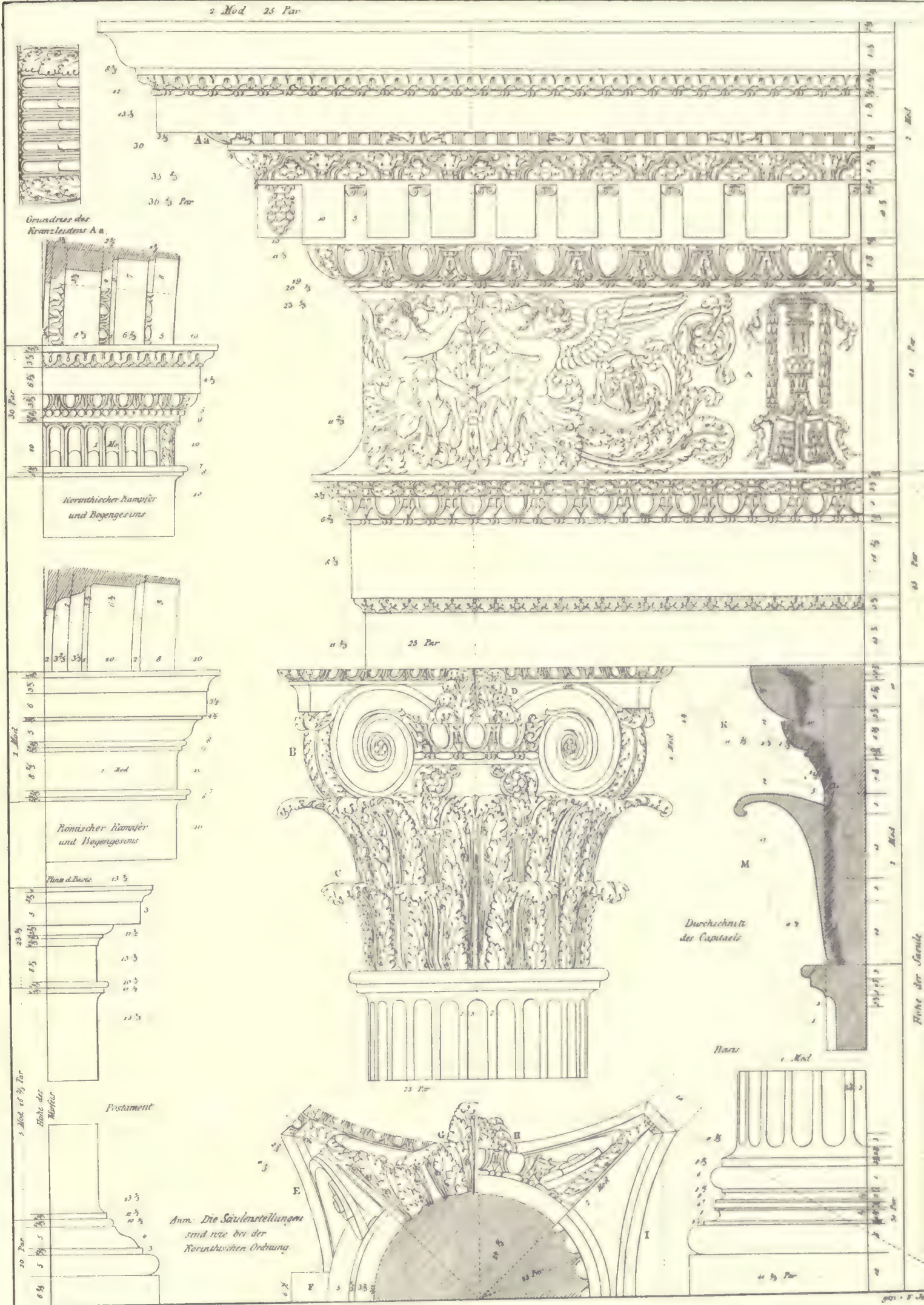


PLATE 83.
FROM THE PANDROSIUM AT ATHENS.

Beside the forms of columns and pilasters heretofore considered, statues in the masculine and feminine, as supports for cornices and entablatures, also are found in various monuments of antiquity. The former are called telamons; the latter, caryatides, so called, according to Vitruvius, from the Carya in Laconia, from whence, at its conquest by the Greeks, the women were led away captive, and to perpetrate their slavery were represented in buildings as charged with burdens. On works of delicate proportions supports of this kind can be introduced very effectively, but too large a scale should be guarded against, as the human form at a colossal size is easily startling, particularly where several stand together. Also care should be taken that they do not appear overloaded, thus representing an unnatural function. It appears very proper with forms of this style to give the capital which is carried on the head the shape of a basket, in the free form of which is found a suitable transition to the straight lines of the entablature. On small porches, tabernacles, etc., for supporting balconies, and on attic stories before the pilasters, these figures find suitable application.

It has already been mentioned at the description of the Temple of Minerva Polias (Plate 33) how the Pandrosium, or south portico, was connected thereto. The Pandrosium consists of a portico covered with marble slabs, the entablature being carried by six statues and two small pilasters, standing on a base which extends around three sides. On this portico built of Pentelic marble is unfolded art of the highest origination, and the proportions and profiles of the members are in strict harmony with one another and with the whole. The ornamentation is of the most perfect execution and in the best style.

In order that the Ionic entablature should not appear too heavy for the statues, the frieze has been omitted. Nor was it required from a constructive standpoint, as the roof slabs were carried on the architrave and not on beams as was the case with larger porticos. The dentil member occurring here is the earliest example of this ornament. A striking egg mould seems to take the place of the cyma, although the bead mould thereover indicates that above, another member followed, which is now missing. This could only have been a cyma which answered for the crowning member and gutter at the same time. Probably it was of bronze. The disks on the upper fascia of the architrave are projections for incompleting rosettes.

The statues are of the greatest beauty, but they are often incorrectly designated caryatides. They represent virgins in pan-Athenean festival dress. On the Frontispiece, Plate 1, is represented one of these figures complete.

T 33



PLATE 84.

FROM THE TRIBUNE IN THE FORMER ANTIQUE HALL OF THE LOUVRE IN PARIS.

This Tribune ornaments the main entrance of the old Antique Hall, and has four supports on the front. The statues here appear as if they grow out of the column shafts, since one sees the capital above and the base of the column below. The figures were without arms, presumably because the antique statues were found without them. The entablature is complete with frieze, unlike the former example, and ornamented after the Roman manner. One of the figures is represented complete on Plate 1.

SOCKEL, CARYATIDE UND GEBÄULK
des Antiken Saals im Louvre. Von Jean Goujon.

T 84

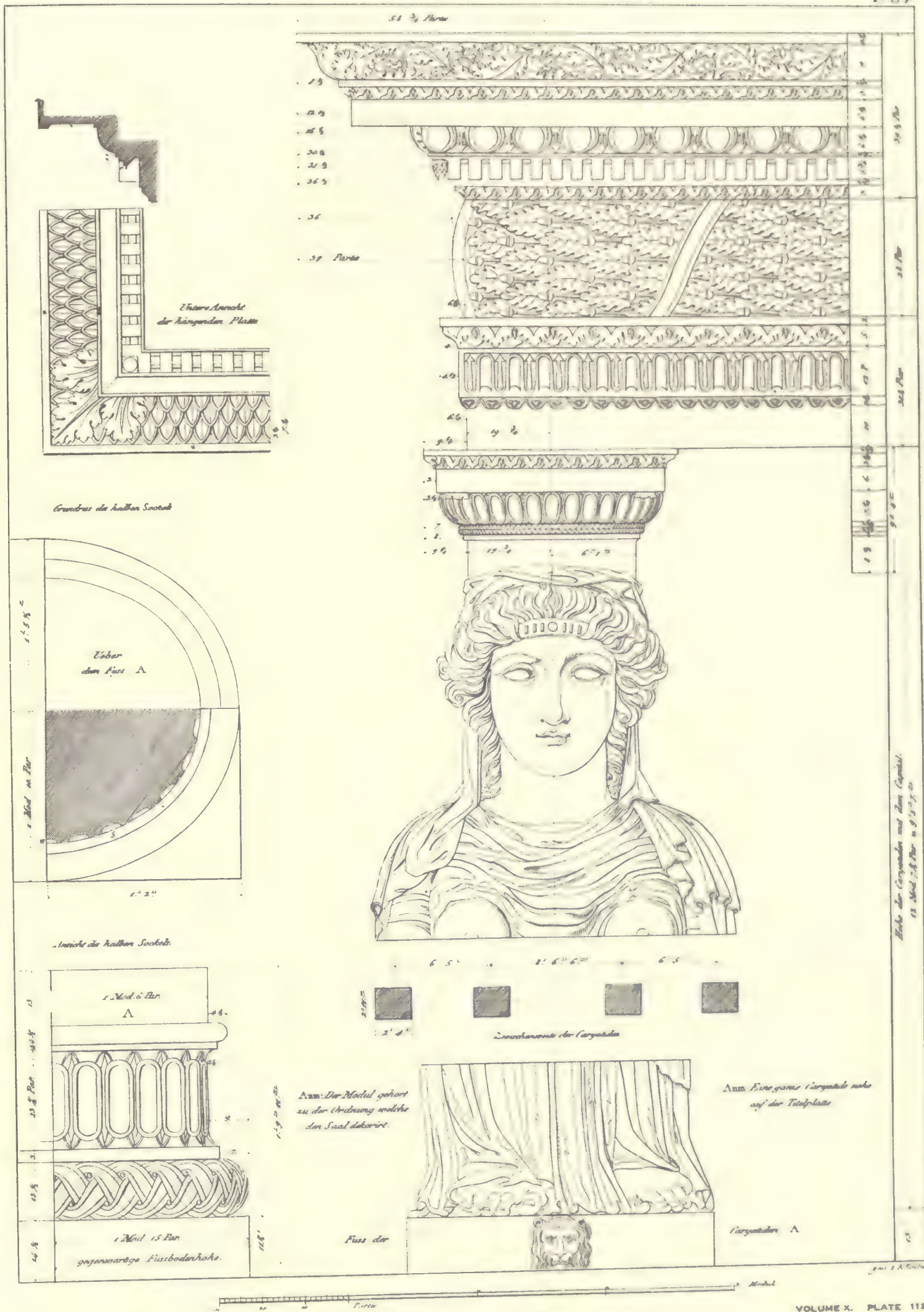


PLATE 85.

VARIOUS ANCIENT ENTABLATURES.

Vitruvius writes that the front surfaces of the different parts of the entablature, the architrave, frieze, corona, etc., for optic reasons, should tilt forward about 1-12 of their height.

In addition to the examples of entablatures which we have given in this work, we will add a few which, though not as elaborate, are composed after the same principles. Three of them belong to the interior of the Pantheon (Plate 65), and although they are there placed near together, but serve different purposes, they are similar to one another in the arrangement of their members and in their proportions. The architraves alone are different. The fasciæ of the architrave and the corona seem to have given the architect much thought, and have been the cause of much dispute, as they are both slanting forward and backward. It has been assumed that these slanting surfaces were for the purpose of increasing or decreasing the adjacent projections, but this rule seems inconsistent, inasmuch as on the small Altars or Tabernacles in the Pantheon there is no reason whatever why the corona and the dentil member should overhang, while the architrave recedes. On the cornice of the attic the members slant forward, while the architrave is perpendicular. It must, therefore, have been the taste of the architect and not a general rule of the time that produced this manner of profile, which is, therefore, strictly speaking, not to be recommended. The soffits of the small Altars on the Pantheon are found on Plate 87.

The entablature at the bottom of the plate is from the doorway under the portico of the Pantheon. The modillions have been omitted, and the other members have been more appropriately ornamented. The profile of the mouldings is highly spirited, and the relation of all, one to another, very good. The filling of the opening consists of two doors and a transom light all of bronze. On Plate 94 is given an example of a similar filling. A diagram of the complete doorway is found on Plate 93. The cornice with consoles near the center of the plate belongs to the exterior of the same building.

The entablature from the Peace Temple, also shown on Plate 85, is not a creditable example. Particularly to be criticised is the absence of the corona.



PLATE 86.

ENTABLATURES AND IMPOSTS.

This plate shows, on the entablatures of the second and third orders of the Colosseum at Rome, the same profile peculiarity that was mentioned on the former plate, but in an entirely opposite application, inasmuch as on the Pantheon it was used on the interior, while on the Colosseum it was used on the exterior. At the latter the projection of the architrave is even greater at the third story than at the second. The omission of the corona in the third story order is a still further proof of the great misunderstanding of the constructive members.

This plate contains also the impost and archivolt of the Triumphal Arches of Constantine and of Septimius Severus, as also the attic of the latter (see Plates 71 and 78 for these Arches). The impost cornice of the Arch of Constantine has under the corona, consoles, in the underside of which are very well executed flying eagles. As a whole this cornice appears to be formed from the Corinthian. At the impost of the great arch of Septimius Severus the crown moulding is carried on the dentils, the corona being entirely suppressed.

Ionische von der 2.^{ten} Ordnung des Coliseum zu Rom. Korinthische von der 5.^{ten} Ordnung des Coliseum zu Rom. 236

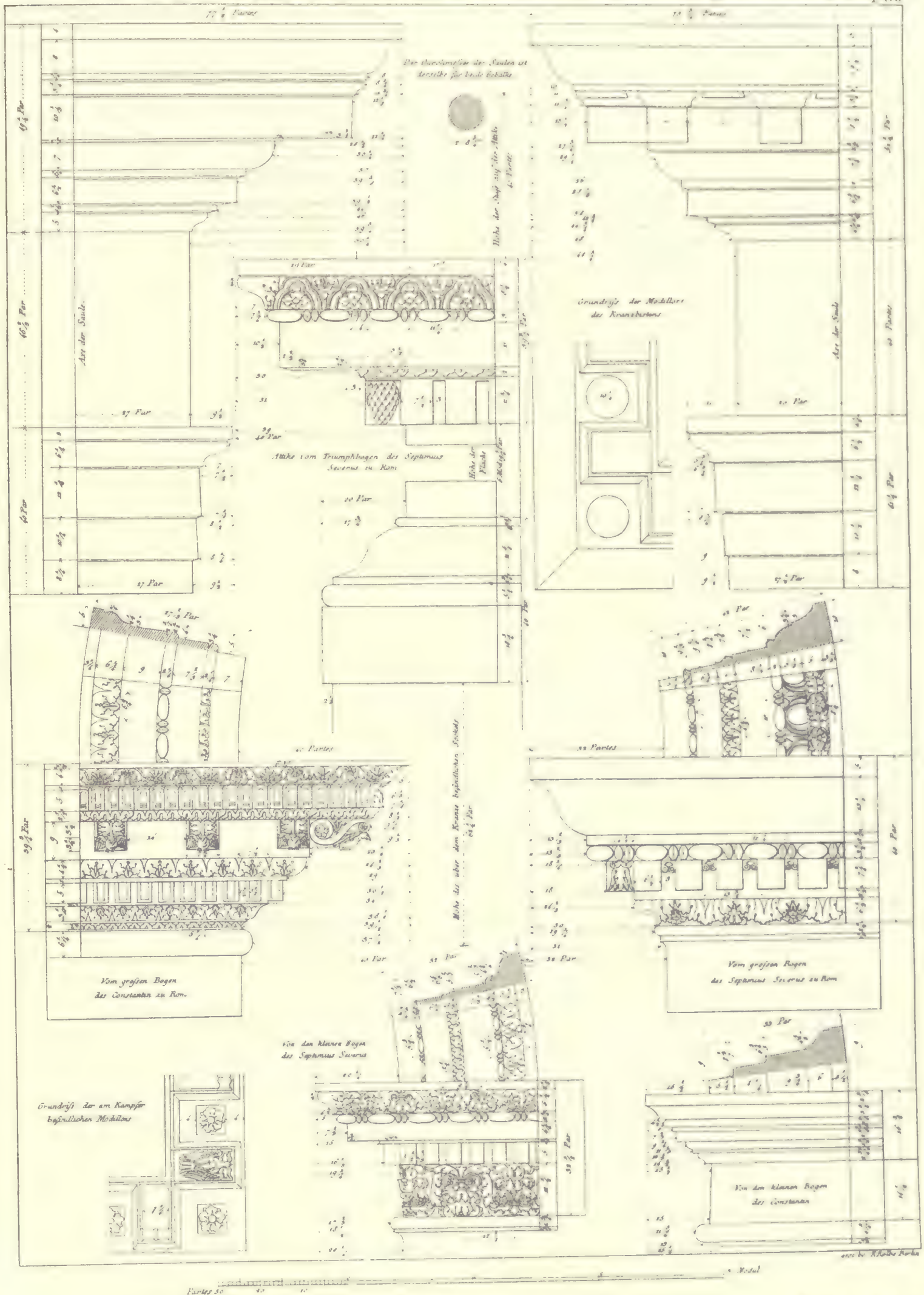


PLATE 87.
ARCHITRAVE SOFFITS.

Though the form and ornamentation of the architrave soffit are not subject to any given rules, we have considered it proper to give a number of examples from the old Roman monuments. On the plates heretofore considered are found the orders to which they belong.

We see that the ornamentation is a matter of taste and governed by the richness of the entablatures, as can be observed at the Temple of Antoninus and Faustina, at the three columns on the Campo Vaccino (Temple of Jupiter Stator), at the Temple of Jupiter Tonans, and at the columns of the Forum Nerva. On the first-named example the ornamentation follows the curve of the abacus; at the small Altars of the Pantheon, and the Forum of Nerva, it partly surrounds the flower of the capital. At the orders of the Pantheon and on others it has a simple rectangular form.

On the entablatures of the Grecian monuments the under surface of the architrave was smooth and without ornamentation.

ARCHITRAV- SOFFITTEN nach alten römischen Monumenten

T. 27

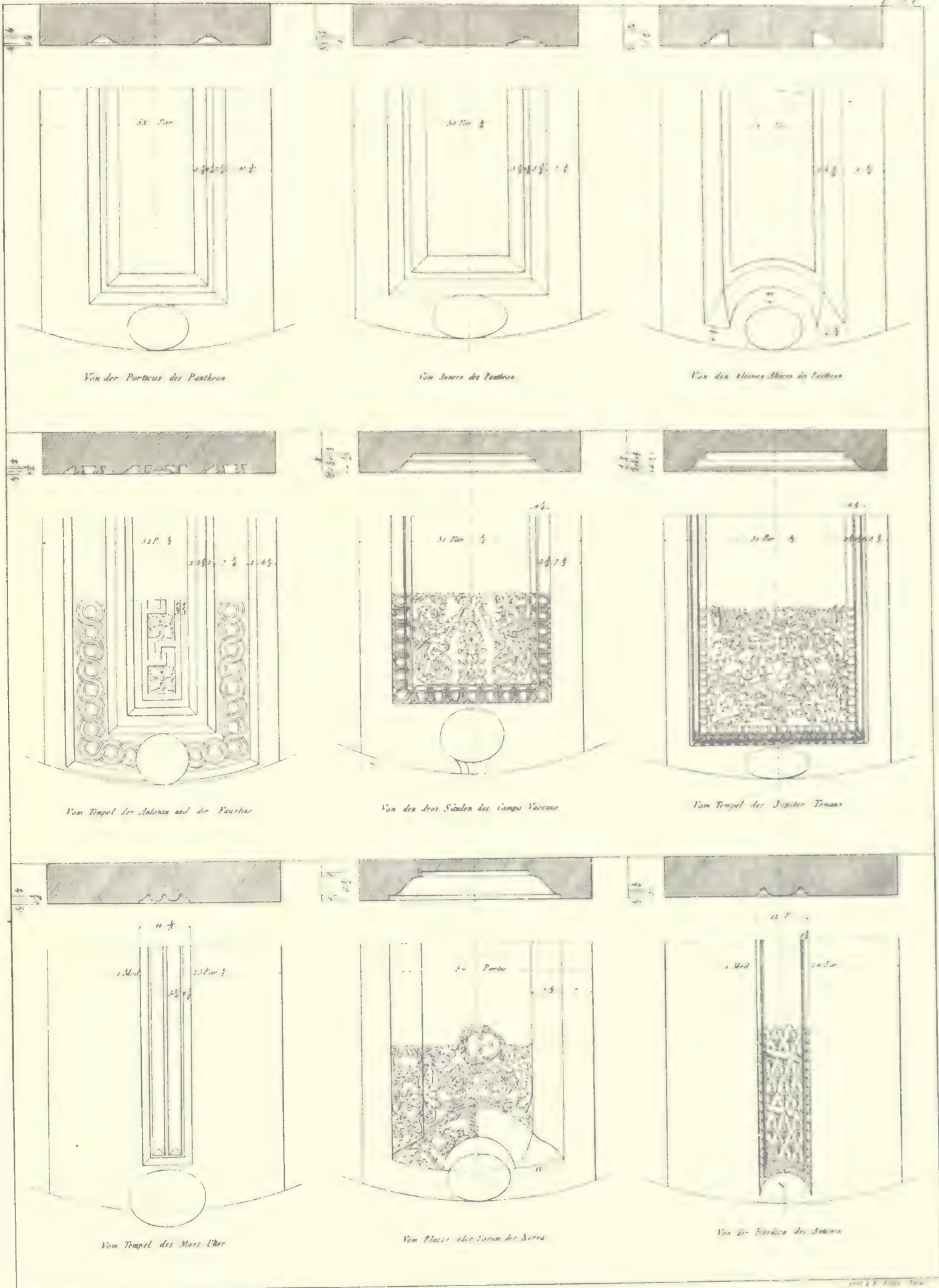


PLATE 88.

PROPORTIONS OF THE ORDERS.

Entasis of Columns:

The column shaft was not tapered in a straight line by the old masters, but with a swelling (entasis) from the bottom up. Later the lower third of the column shaft was kept cylindrical and the entasis started from that point. The fillet over the base, as also the upper astragal (the projection of which is always the same as the lower column diameter, or two modules) is counted as a part of the column shaft. Fig. 1 represents a column shaft with the entasis starting at the bottom, and Fig. 2 a shaft where the entasis starts at one-third the way up. The method of obtaining the entasis for the latter can also be used for the shafts having an entasis the whole height.

Rules for tapering Shafts of heights from 15 ft. to 50 ft.:

The diagrams at the lower left corner of the plate give the different degrees of taper for shafts of different heights. These varying proportions have no bearing on the height of capitals.

Relation of the Entablature to the height of the Column:

At the upper left corner of the plate are diagrams showing the proportion of entablatures to columns of different heights.

Intercolumniations of Columns:

When the columns are placed with $1\frac{1}{2}$ diameters between them the spacing is called Pyknostyle; with 2 diameters Systyle; with $2\frac{1}{4}$ diameters Eustyle; with 3 diameters Diastyle; with more than 3 diameters Aræostyle. If the columns are placed with only $1\frac{1}{2}$ diameters between, they are kept slender and are made 10 diameters high; with 2 diameters $9\frac{1}{2}$; with $2\frac{1}{4}$ diameters 9; with 3 diameters $8\frac{1}{2}$, and with more than 3 diameters only 8 high. The corner column is made 1-50 stronger than the others, because the light background on account of its intensity apparently reduces the thickness of the column. The center space at a Prostyle is made $\frac{3}{4}$ of a diameter wider at the Eustyle and yet narrower spacings.

Frontons, from Vitruvius and Serlio:

The upper, right figures give the methods of Vitruvius and of Serlio for proportions of pediments, or frontons.

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PLATE 89.

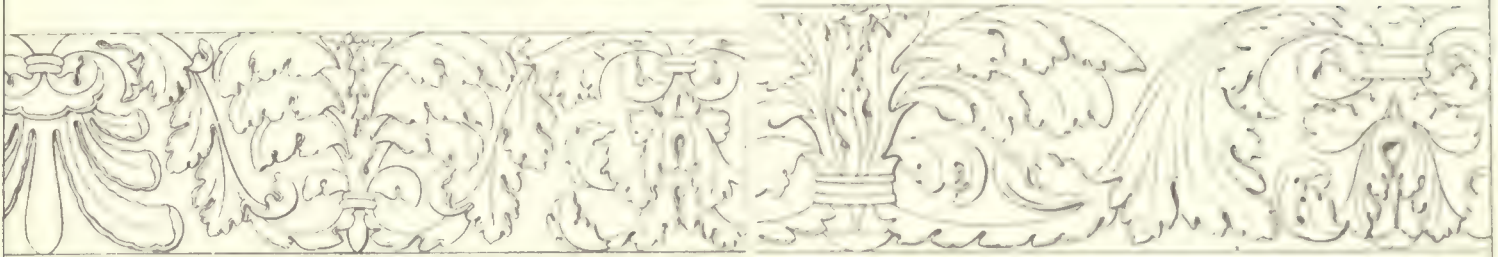
ORNAMENTATION OF THE MEMBERS.

Of the Roman examples of ornament we find many on this plate at a large scale. Normand (from whom our plate is taken) represented only Roman ornament, and omitted the profiles, which is to be regretted.

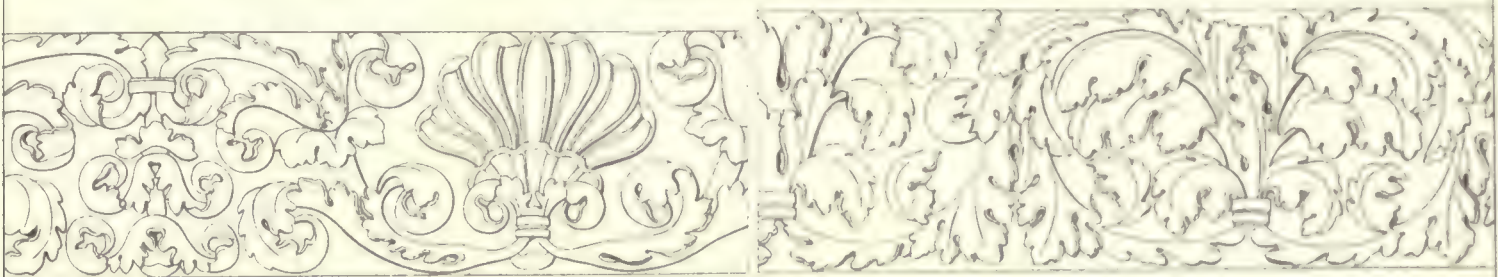
In the ornamentation and arrangement of members we find the Grecians had the greatest refinement; in contrast to this the Romans were apt to be over-extravagant.

The ornamental mouldings represented here, used with reserve and judgment, can be made to serve very useful purposes.

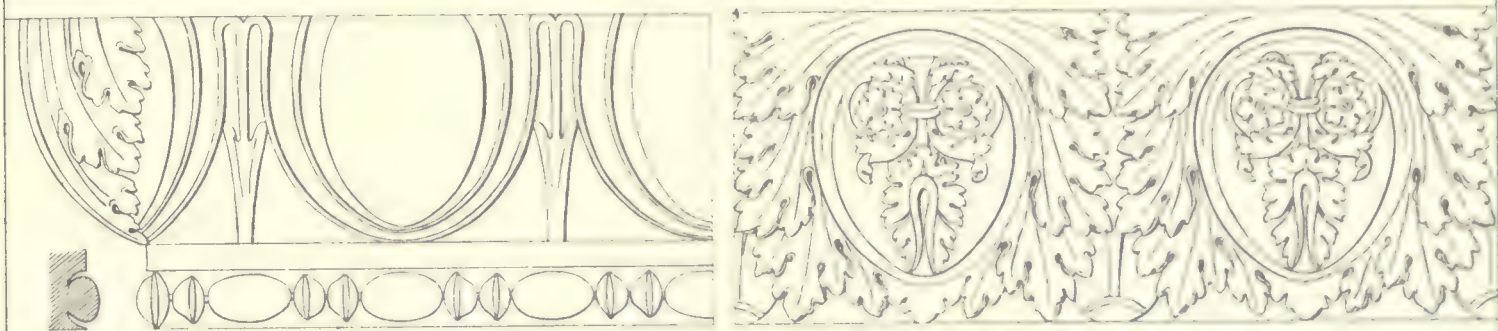
Rundleisten, Karmasse oder Sturzornen



Rundleisten und Hohlkehlen



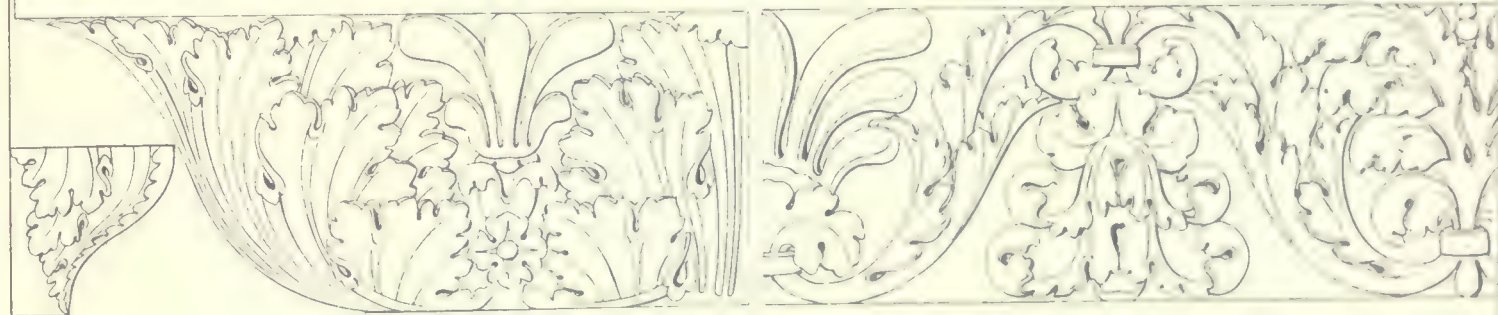
Viertel oder Eurostab



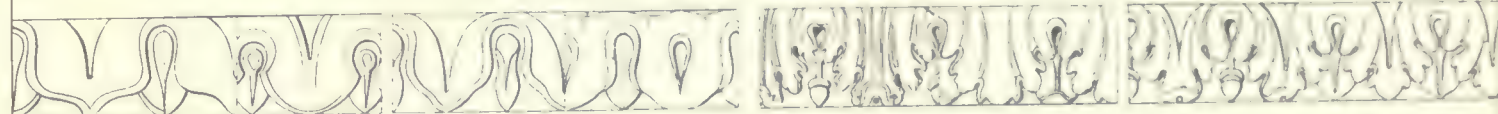
Hohlkehlen, Kehlleisten und ungestufter Karmasse



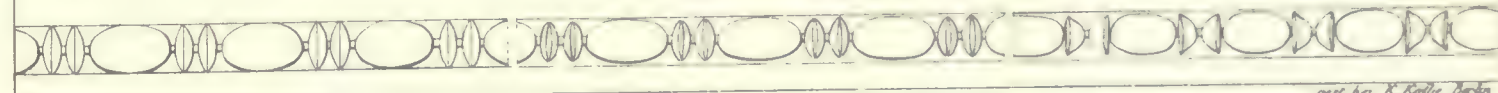
Karmasse



Fingeln verschiedene Blätter - Verzierungen für Kehlleisten



Perlenstabe



gest. von K. Kollbe Berlin

PLATE 90.

MONUMENTS.

The care of the deceased was in the earliest time, as now, of much concern, and their resting places were in some manner suitably designated. Of the different grave monuments, which in later times have been discovered, we here consider only a certain style; namely, those often erected by the Athenians, and called epitaphs or stele. They usually consist of a thin upright marble slab as represented at Fig. 1. On the front side of the slab is often found an inscription, sometimes only the name of the deceased, and thereunder his last words, as indicated at Fig. 4. At the top the slab always had a light cornice, over which was a gable form, or an ornamental crest crowning the whole.

The stele at Fig. 1 represents a well-preserved and excellent example from the most prolific epoch of sculpture. Under this slab presumably was once a base or plinth about 6 inches high. The crest of this monument is executed in the greatest sobriety. Its ornament consists of two volutes or rams' horns and a palmetto, the symbol of peace, the whole in high relief.

At Fig. 2 is shown the upper part of a stele which was found under the ruins of the Temple of Themis at Rhamnus. On the front side of the slab in a panel was represented in relief a parting scene. The top has palmettos or flower leaves springing out of acanthus leaves. The slab, exclusive of the top, was $1\frac{3}{4}$ ft. high. The back side was left rough, as presumably, it stood against a wall.

At Fig. 3 is an ornamental top of similar outline, decorated with delicate ornament, consisting of flowers typical of everlasting life. The background is somewhat concave.

At Fig. 4 is a crest of particularly good origination. From an acanthus, spring leaves, vines, and palmettos, with a very graceful movement, but not entirely symmetrically arranged. The background is of pointed arch form.

Fig. 5 represents a three-pointed crest with similar flat carving as on the former example. Out of a strong acanthus plant spring, in the center, two branches with small leaves, vines, and palmettos, and at the sides similar vines and leaves. The three-pointed form of this crest is brought about by the arrangement of its ornamentation. The erection of this slab probably falls between the ages of Pericles and Alexander.

The stele shown by Fig 1 was formerly owned by private parties at Venice. Those shown at 3, 4, and 5 are in the British Museum at London. The Royal Institute at Berlin has plaster casts of the four stele after which the drawings shown in this plate have been made. The stele at Fig. 2 is from the Unedited Antiquities of Attica.

STELLEN.

T. 90.



ΑΣΚΛΗΠΙΟΔΕΙΟΣ
ΠΡΑΞΑΝΟΣ ΟΥΤΡΟΦΟΣ
ΕΠΙΚΛΑΗΣ ΑΣΚΛΗΠΙΟΔΕΙΟΥ
ΟΔΥΝΕΙΟΣ

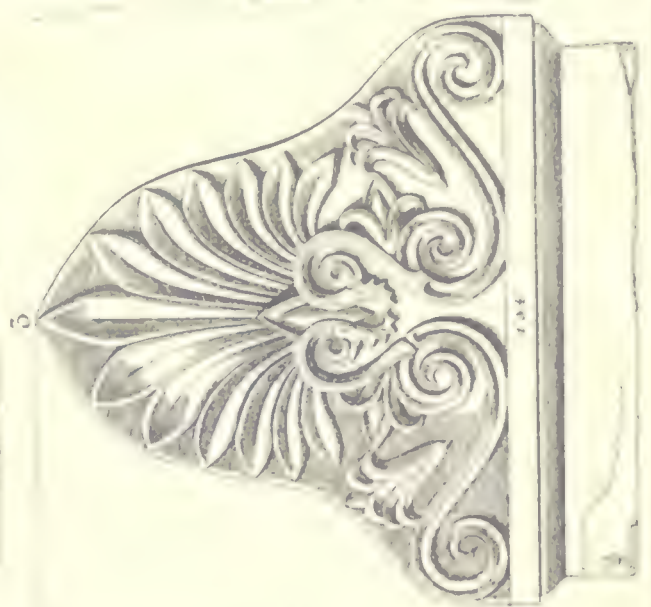
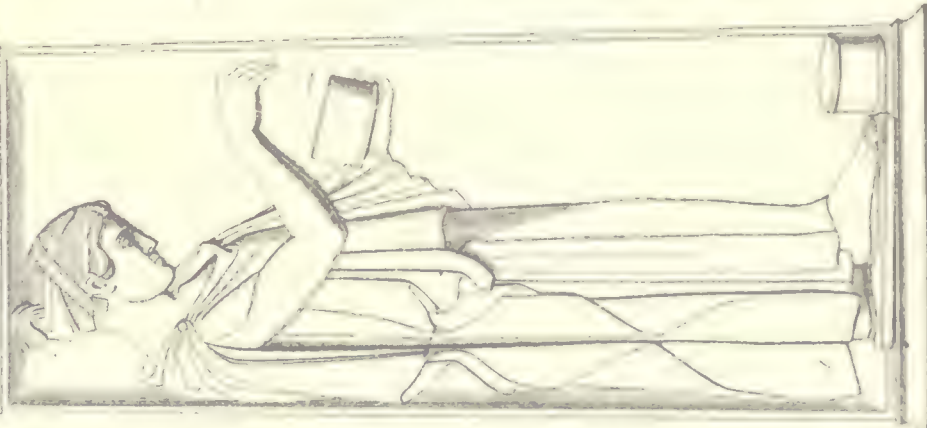
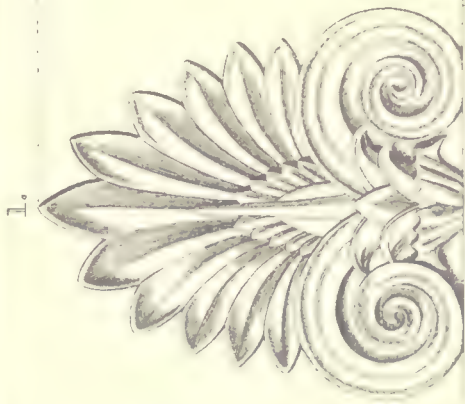


PLATE 91.

CANDELABRA.

Candelabra belonged to the most ornamental utensils of ancient times, not alone in the temples and public buildings, but in the private houses. Their principle use was for the support of lamps or fire pots in order to bring the light to the proper height. They were sometimes of burnt clay, but in the most prolific period of art they were mostly of ornamental bronze, though often also of precious metals ornamented with gems. Examples of marble candelabra richly and fantastically ornamented have also been preserved. The most numerous and best examples in bronze were found in the buried cities of Herculaneum and Pompeii. As manifold as is the arrangement of their ornamentation and construction, they are always recognized in three principal parts, namely:

A; the base, usually resting on three feet, mostly lion's and griffin's paws, a four-cornered base being seldom used.

B; the shaft, either smooth or fluted, and at times having the form of a pilaster or a tree stem. There were also candelabra the shafts of which were in two parts, the one movable in order that the light might be raised or lowered.

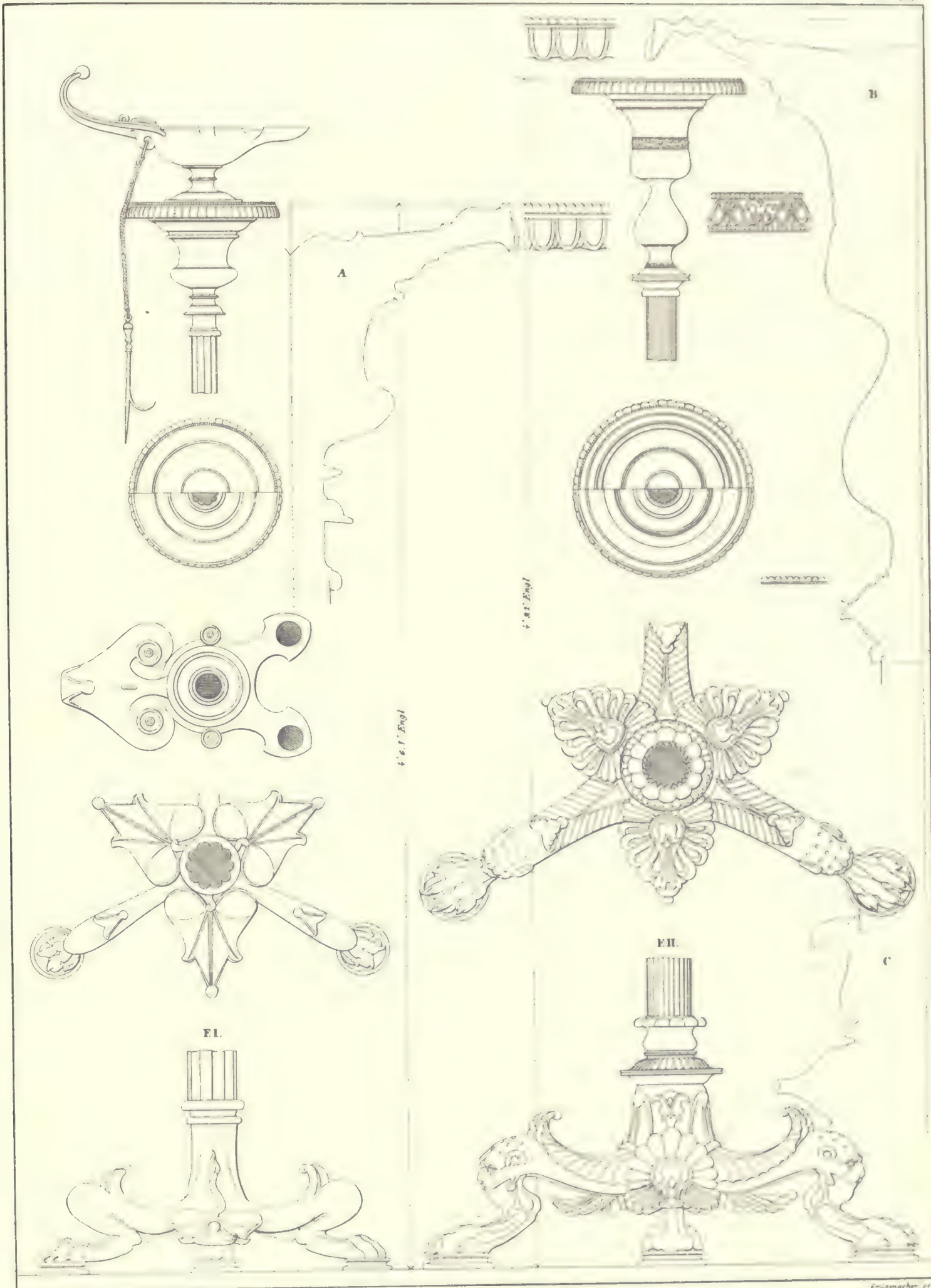
C; the capital, on which a lamp or fire pot rested.

Our plate shows two candelabra of the most usual type. The base of the candelabrum represented at Fig. 1 is three-footed, with lion's feet and paws which spring from a stem of the middle piece, the spaces between being filled out with ivy leaves. The ribbed stem or shaft has at both ends dowels or pins, on the lower of which is secured the base and on the upper the capital. This capital has the form of an ornamental vase. Under the elevation is the plan showing upper and lower views, and at A is the profile of the capital at actual size, together with an elevation of the ornament of the rim. On the plate of the capital we have indicated a double flamed lamp, the plan of which is shown underneath. The handle has the form of a leaf, and thereunder hangs on a chain the instrument for adjusting the wick. On the front are seen two projections with sockets which contained the wicks. The lamp and candelabrum were found in Pompeii.

The candelabrum at Fig. 2 has a construction similar to the one just described. It is a little higher, much more richly ornamented, and belongs to the most elegant examples which up to the present time have been found in Herculaneum. The base is of pleasing form and decorated with fantastic ornament. The paws or feet project from under panther's heads, and these in turn from under leaves, from all of which an excellent transition to the fine fluted shaft above is effected by means of harmonious membering. The profile of the latter is given at C at actual size. Of the greatest refinement is the capital, which is only slightly ornamented, but its graceful form and profile show more knowledge of proportion than many examples of the art much more richly decorated. The plan underneath shows an upper and lower view of this capital, the profile of which is shown at actual size, together with its ornament, at B.

CANDELABER.

T. 97



J. M. March del 1836

12 Engl

Gutzmaier sc

PLATE 92.

THE DOORWAY OF THE ERECTHEUM AT ATHENS.

This beautiful example of a Grecian doorway, executed in Pentelic marble, is found under the four-columned portico of the Temple of Minerva Polias which we considered at Plates 30 and 33. As the spaces between the columns of the portico, in which was located this doorway, were at Stuart's time, about the middle of the former century, walled up, and this and neighboring parts occupied by the wives of the Turkish Pasha, Stuart and Revett could not gain access to the doorway and consequently no description of it was left by them. The English architect Donaldson took notice of it and described it in his valuable work (London, 1833), from which the representation on our plate is taken.

The scale has been reduced to modules and parts in order to simplify the comparison with the doorways on the following plate. The width of the opening at the top is taken as six modules.

Fig. 1 is an elevation of the entire doorway. The upper member of the cornice is a considerable distance from the ceiling of the portico, and the doorway is thus of normal size and in more proper keeping with the spacing of the columns of the portico than is the case with the examples on the next plate, the cornices of which reach to the level of the architrave of the entablatures, and in consequence of such a great height, the openings are necessarily wider than the column spaces of the prostyles. On the example under consideration the width of the door opening and the space between the columns are the same.

Fig. 2 shows part of the ornament at larger scale, and thereunder is a section of the trim which here consists of architrave and frieze, the latter far projecting and with ornamental rosettes. The width of this trim is one module nine parts and is the same width all around. According to Donaldson the console is also the same width at the top as at the bottom, but a cast of the same actually shows it a little wider at the top.

Fig. 3 is the vertical section of the lintel or cornice. It consists of one piece from the soffit of the jamb to the underside of the crown mould or cyma. Fig. 4 is the side view of the console and cyma, and Figs. 5 and 6 are sections of the former. The flower ornament springing out from the lower volute is pierced through. The leaf under is in a great part restored.

On Plate 36, at Figs. 1 to 4, the ornamentation of the members at a larger scale and the profiles are given. When these ornaments in their relative size are compared with one another on our plate there appears a variation in the scale of the same. The egg mould is very large and the pointed leaves on the cymatium of the architrave are too small and too much ornamented. It is also noticeable that the principal parts of the cornice are not so logically composed as on other monuments of the Periclean age. The corona as dominating member of the cornice is here in comparison with the other members too insignificant, low and little projecting, and hangs carelessly between the heavy consoles instead of resting upon them. For this reason the corona is entirely missing in the side view. The beautifully ornamented cyma is much too large, and, strictly speaking, is here entirely without constructive motive, for a cornice behind which there is no roof does not require a gutter, particularly in this case, as the whole is already under a roof. The conditions lead us to think that this doorway was not originated at the same time as the portico; also the pointed leaves in the architrave indicate a somewhat later period, and it is probable that the entire doorway was first executed after that time when this interesting building was restored (on account of a fire) shortly after 409 B. C.

JONISCHE THÜRE,
vom viersäuligen Portikus am Erechtheion.

PORTE JONIQUE,
du Portique tétrastyle de l'Erechthée.

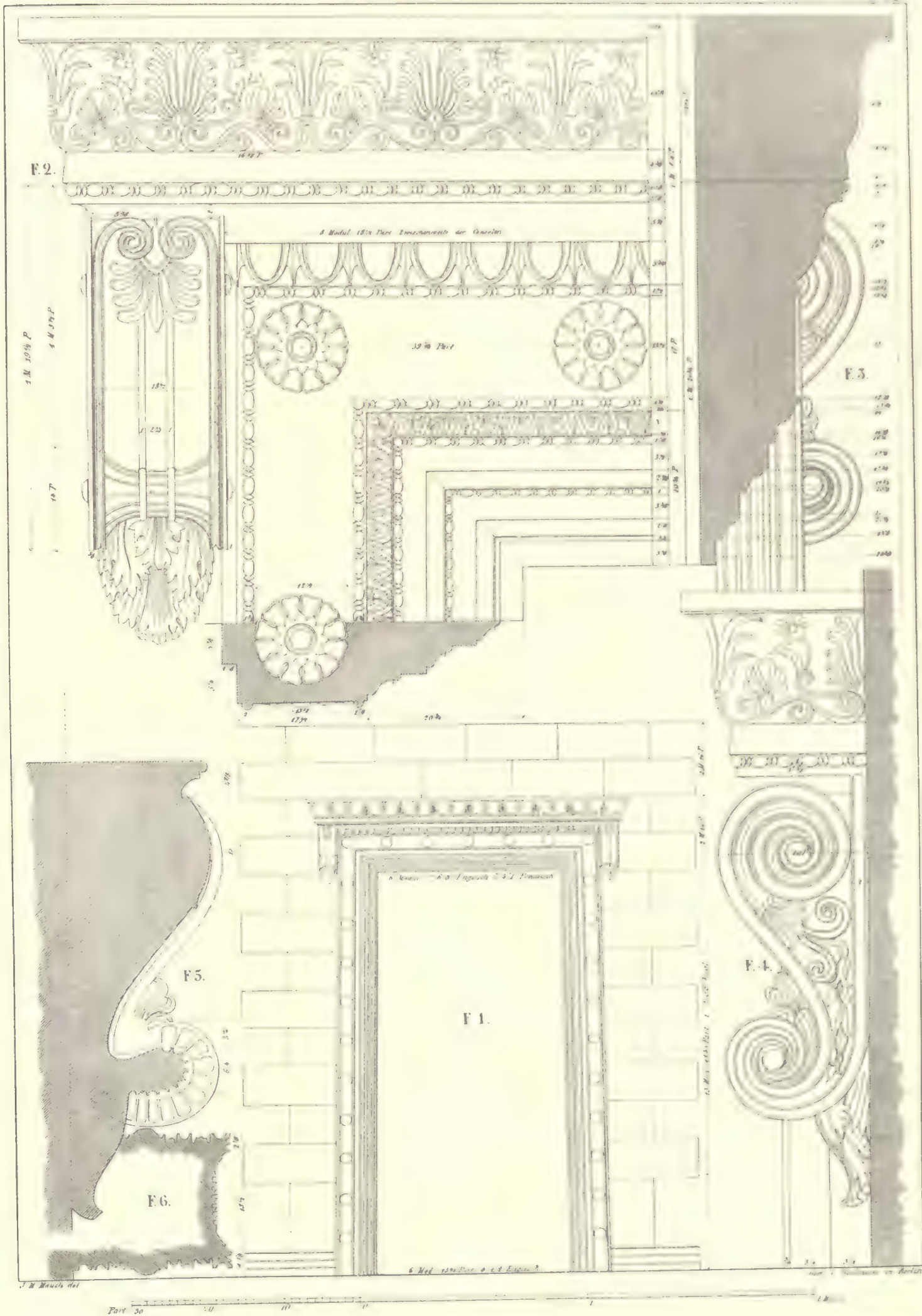


PLATE 93.

VARIOUS DOORWAYS AND WINDOWS.

Window from the Temple of Minerva Polias at Athens:

The design of window trims is similar to that of doorway trims only it is of a simpler character. The frieze was generally narrower and at times the cornice was missing; consoles were never used. The ornamentation on the window of this Temple is of the simplest form. It consists only of an architrave-like trim, which, at the head, has a so-called ear or crosset which is formed by the ends of the lintel projecting. It also answers aesthetic requirements, for the window being narrower at the top than at the bottom requires a projecting lintel of this kind over the inclined jambs, especially when, as in our example, the crowning cornice is omitted. The space between the columns did not permit of a cornice in this case. The closing of the window opening was presumably effected by means of a grille.

Window from the Temple of Vesta at Tivola:

The location of the windows of this Temple at both sides of the doorway is shown at Plate 63. On this plate is shown the exterior of the window trim, which is similar to that of the doorway. The sill is paneled. The omission of the frieze is commendable, for it would only have increased the slender proportion of the whole. The windows have on the interior of the cella a similar trim, which is carried around on all four sides.

Doorway from the Temple of Vesta at Tivola:

The crowning members of the doorway cornice lie at the same height as the abacus of the column capital, and the entire doorway receives an overweighted effect in comparison with the pterona, the column spaces of which are considerably narrower than the opening of the doorway.

Doorway from the Pantheon at Rome:

Our plate contains only a sketch of this extraordinary large doorway, which, however, will answer for discussion, as the principal details were given on Plate 85. It forms the only entrance to the rotunda of the Pantheon (Plates 64 and 65). It is the same width above as below, and herein coincides with Vitruvius' description of large doorways. The head of this doorway is a very skillful modification of the principal cornice or entablature of the interior order (See Plates 65 and 85). The filling is similar to that shown on the next plate.

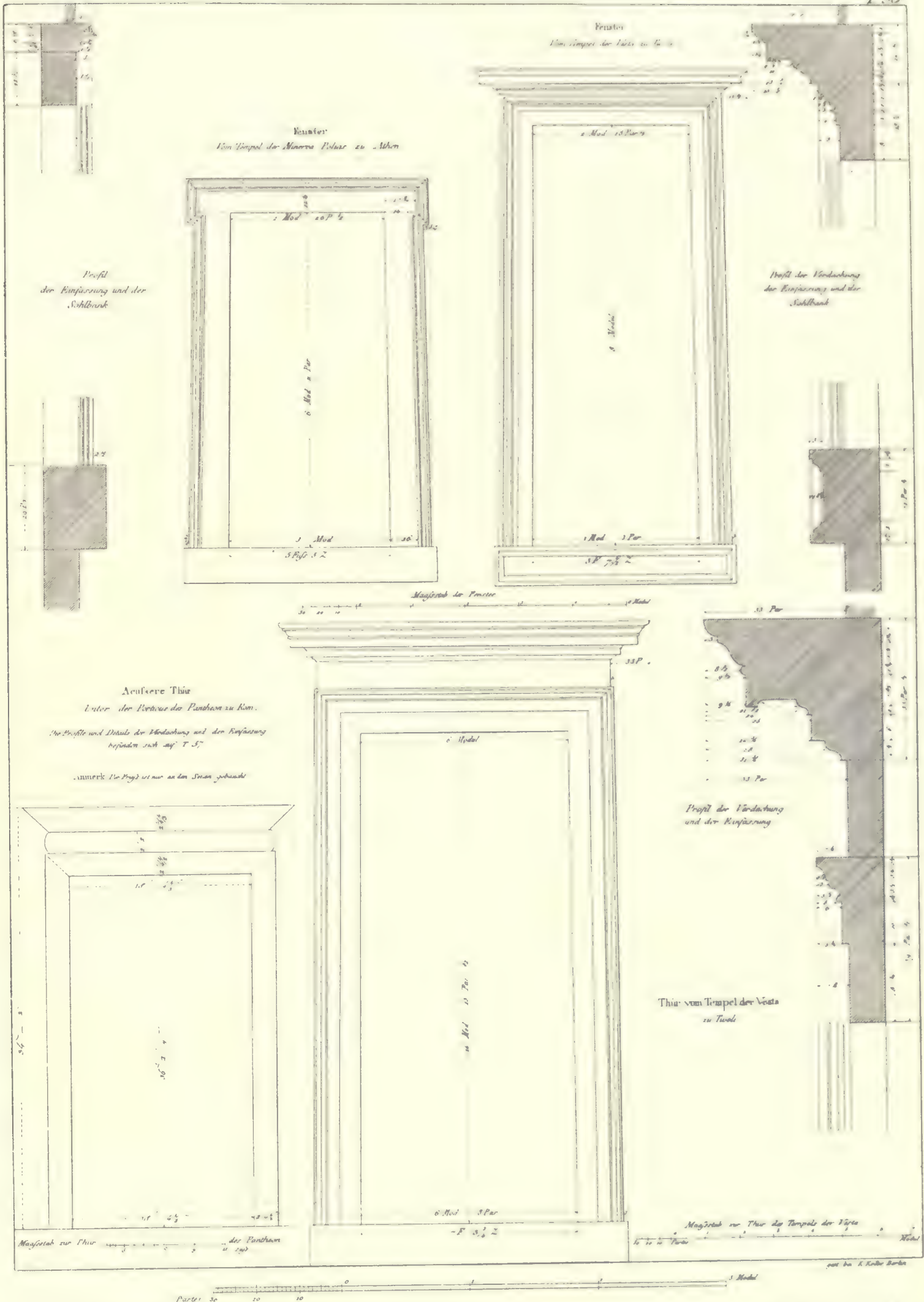


PLATE 94.

DOORWAY FROM THE TEMPLE OF HERCULES AT CORA.

The Temple of Hercules at Cora belongs to the order of the so-called four-columned Prostyle of Doric style. It is a Roman work, about the time of the erection of which views widely differ, but the delicate style of the detail indicates the influence of the architecture of greater Greece, namely, the Pompeian. Particularly is this the case with the ornamentation of the doorway under the portico, which is here represented complete.

Fig. 1 is an elevation of the doorway and also a restoration of the filling. If we compare the different parts with the description of Doric doorways by Vitruvius, we find the arrangement of this doorway practically coinciding therewith. The smooth surface of the wide trim and its excessive projection at the ends of the lintel seem somewhat massive in comparison with the corona and consoles. Probably this wide surface was once painted with ornament in harmony with the delicate members, and it is all the more probable, as traces of stucco coating are yet discernible. This also would excuse the peculiar profile of the outer member, which in that case only answered for the foundation of stucco ornament.

Fig. 2 is a part of the cornice in elevation, and Fig. 3 a section with one of the consoles, and between them is a section of the moulding of the trim and of the console taken at its smallest projection. Only this part of the console is still preserved, the upper and lower scroll as also the acanthus leaf, being restored.

Fig. 4 is a section through the cornice at larger scale, with the ornaments found thereon, an egg moulding and a pearl bead. The latter particularly, with the dentils thereunder, shows much similarity to the same kind of ornament found on doors in Pompeii.

Of the parts belonging to the filling of the doorway nothing remains. On the restoration given in the plate we have governed ourselves partly after the description by Vitruvius and partly after the example of the door of the Pantheon at Rome. The door leaves are borrowed from a very old example at Rome, namely, from the Temple of Remus on the Forum Romanum, the round cella of which has for more than 1300 years answered as a church. The panels of these excellent doors consist of massive bronze plates. The borders are of the same metal, but hollow, and are connected together by pins, the heads of which answer for ornaments.

THÜRE

du Temp. d. Hercules à Cora

PORTE

du Temp. d'Hercule à Cora

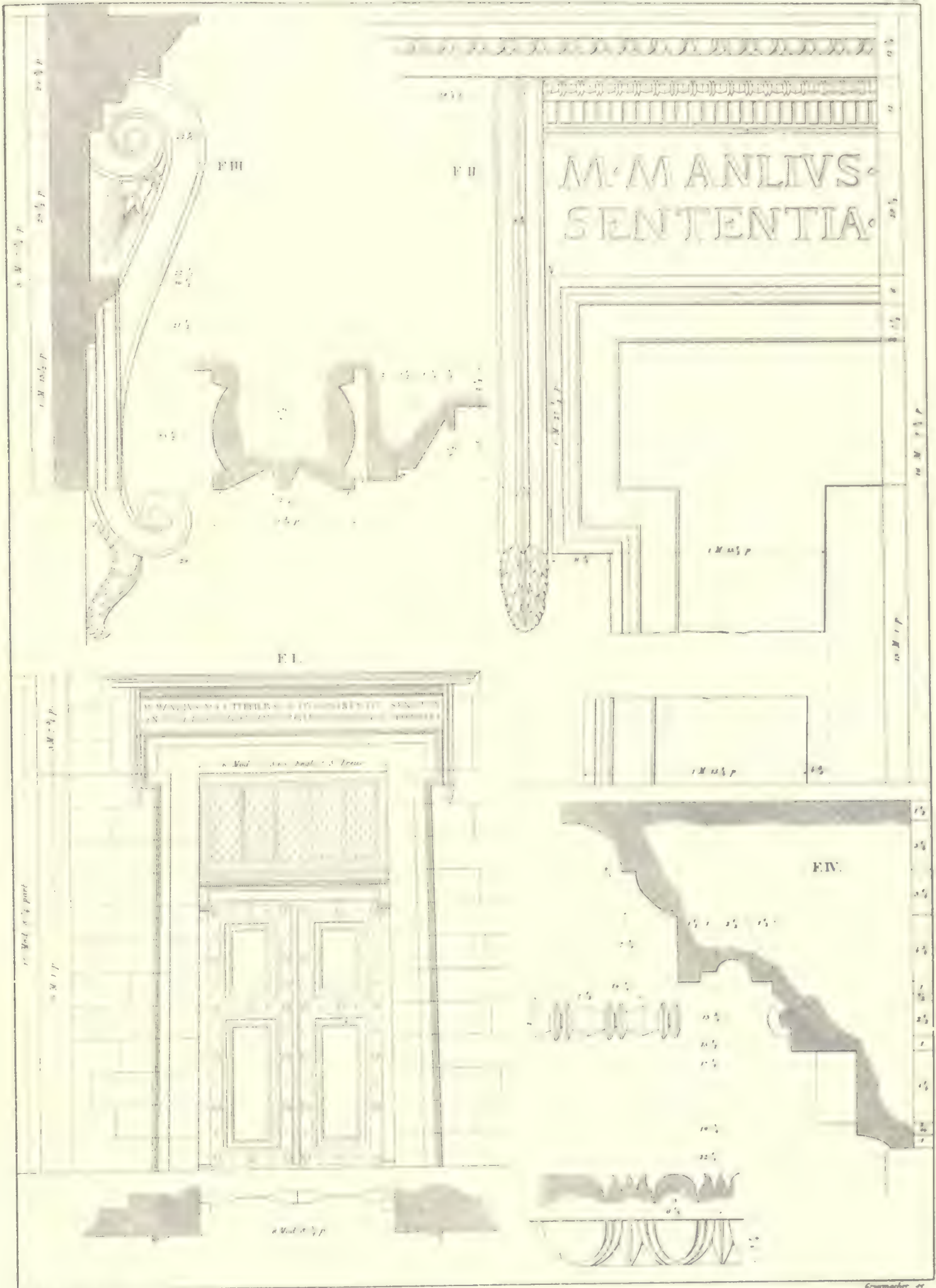


PLATE 95.

DOORWAYS BY VIGNOLA.

Of the masters of the sixteenth century Vignola has best grasped the spirit of Roman architecture. Not only his rules for the orders give proof thereof, but his executed buildings, from which we show two examples of doorways on Plate 95, also corroborate this. These doorways in comparison with the antique examples have, however, heavy proportions and differ considerably in the arrangement of the cornices, modillions being used here without constructive reason. The consoles are strongly tapered and are supported from a somewhat flat pilaster which gives the trim or frame considerable width.

The doorway on the Farnese Palace appears somewhat more refined in its proportions than that from San Lorenzo, but even then has not a favorable comparison as a whole or in its parts with the old examples.

THUREN

von J. Barrozzio von Vignola

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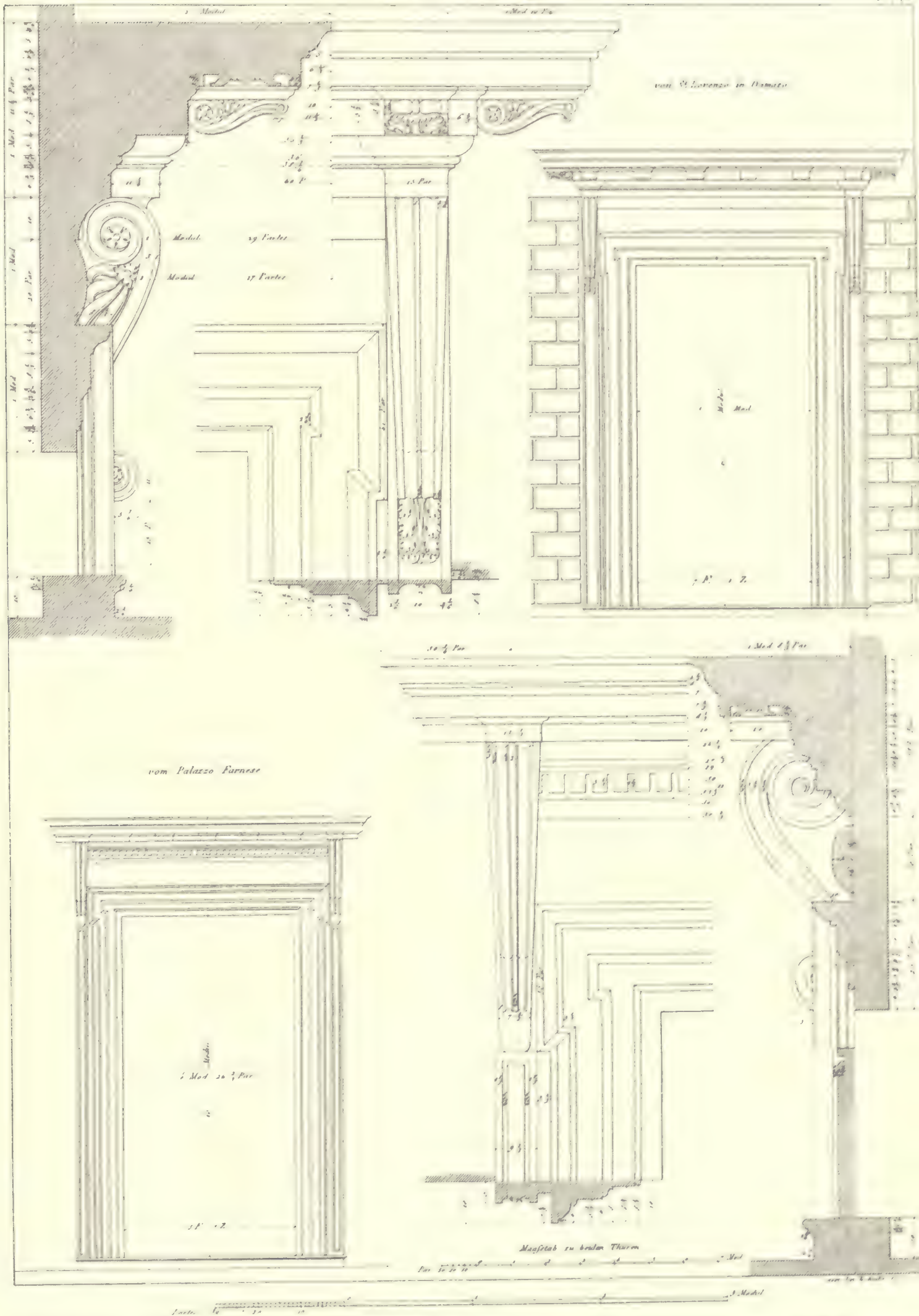


PLATE 96.

ARCH OF THE HOROLOGIUM OR THE TOWER OF THE WINDS AT ATHENS.

We have at Plate 60 mentioned that in the interior of this building was once a water clock or clepsydra, the water for the running of which was conveyed to the building by means of a peculiar aqueduct.*

This aqueduct consisted of a row of piers connected by arches, over which was a cornice containing the water channel. Our plate gives at Fig. 1 an elevation of a part of this arcade, and at Fig. 2 a section. Each pillar is divided on the face by a shallow recess into two pilasters which rest on a common plinth and are crowned with peculiar imposts. At Fig. 4 is a vertical section through the recess between the pillars. The arch form does not represent a true arch, but is in effect a lintel spanning from center to center of pier with a half cylinder hollowed out. Besides the archivolt cut on this huge stone, a moulding surrounds the three straight sides, and at the vertical ends hides the joints in a very clever manner. This moulding also brings about an excellent surface division of the spandrel, each part of which is ornamented with a rosette.

Of the entablature thereover, only the architrave and frieze are preserved, the members of which, as also those of the archivolts, are shown at Fig. 3. The corona, with the dentils underneath, is a restoration. Also it has been taken for granted that the arcade terminated at a corner, which we have effected by means of a pilaster the same height as the arch lintel. The plan of the corner is shown at Fig. 5.

* According to a later edition of Mauch this arcade did not, as formerly presumed, belong to the Tower of the Winds, but to a portico forming a portion of the building which bordered on the great market lying between the Hadrian Museum on the north and the Acropolis on the south. The time of the erection of this portico falls in the first emperor's time.—ED.

Fig. 1.

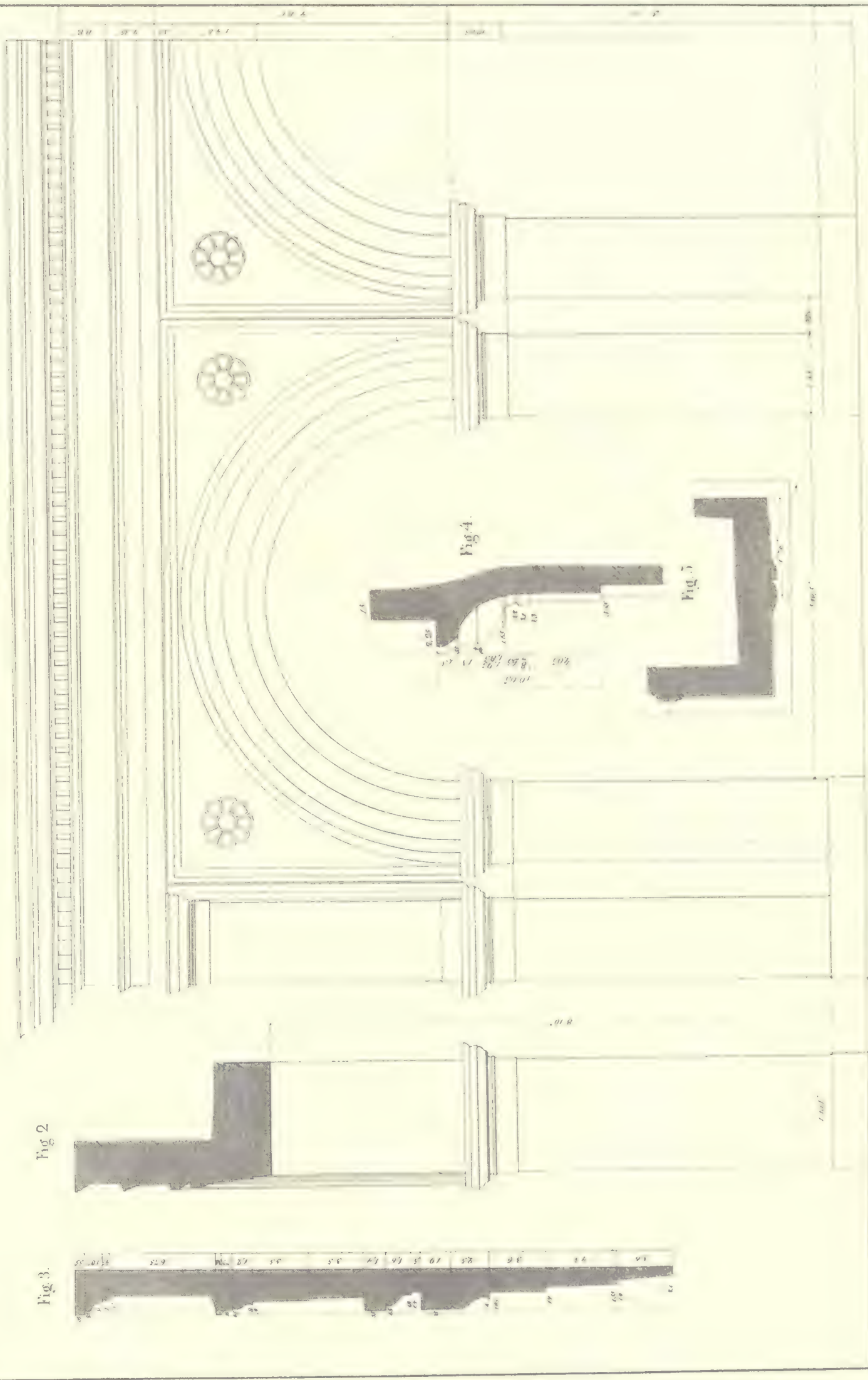


PLATE 97.

ARCHES ON COLUMNS.

In the year 1830, near the Castle Vecchio at Ferrara, yet stood an arch which presumably was the remains of a Roman column arcade. On account of its ornament we have represented the same as an example on Plate 97. On the corner column outside of the archivolt stands a small corner pilaster, which gives the entablature over, a logical support, and especially where it is required the most. We find a similar arrangement earlier on the old arch door at Perrugia and on the exedra in the tomb street at Pompeii, but not carried out as well. In the spandrels are round sinkages in which presumably once were busts. In the frieze of the entablature are placed wreaths which seem to have contained inscriptions.

In connection with column arcades in courts, columns have been placed in the corners without reason. Often, however, we find more logical examples with pillars, and we will consider an example of this character on this plate taken from the Palace of Cancelleria at Rome by Bramante Lazzari, the most gifted architect of his time. Our representation shows one of the arches of the second story in elevation and section, and thereunder the plan. The pilasters and columns stand on pedestals, between which slightly setting back, is a continuous course with the same profile, forming a continuous podium under the arcade, as at the Roman theatres. The columns consist of red oriental granite, each in one piece. They were, at the rebuilding of this Palace, taken from the Basilica San Lorenzo at the end of the fourth century, and it is thought that they still earlier once belonged to the Portico of Pompey, which stood nearby. The pilasters are also of red granite, and their shafts are ornamented by rich bands. In the spandrels are medallions, in which is the crest of Cardinal Riario, who caused this Palace to be erected. The first story has similar columns and pilasters. On each long side are eight, and on each short side five bays. Over the two arcades rises yet a third story with Corinthian pilasters in keeping with the work below.

The third example was drawn by the author in 1830 at the site in Florence, and is given here on account of its original manner of terminating the arcade by returning the architrave down at the side, and which again returns under the base of the column. The podium is cut through in order to make room for the steps, an arrangement which is not very successful or pleasing. The entablature is plain and without a frieze. In the spandrels between the archivolts is seen the half moon from the crest of the family Pucci.

BOGENSTELLUNGEN.

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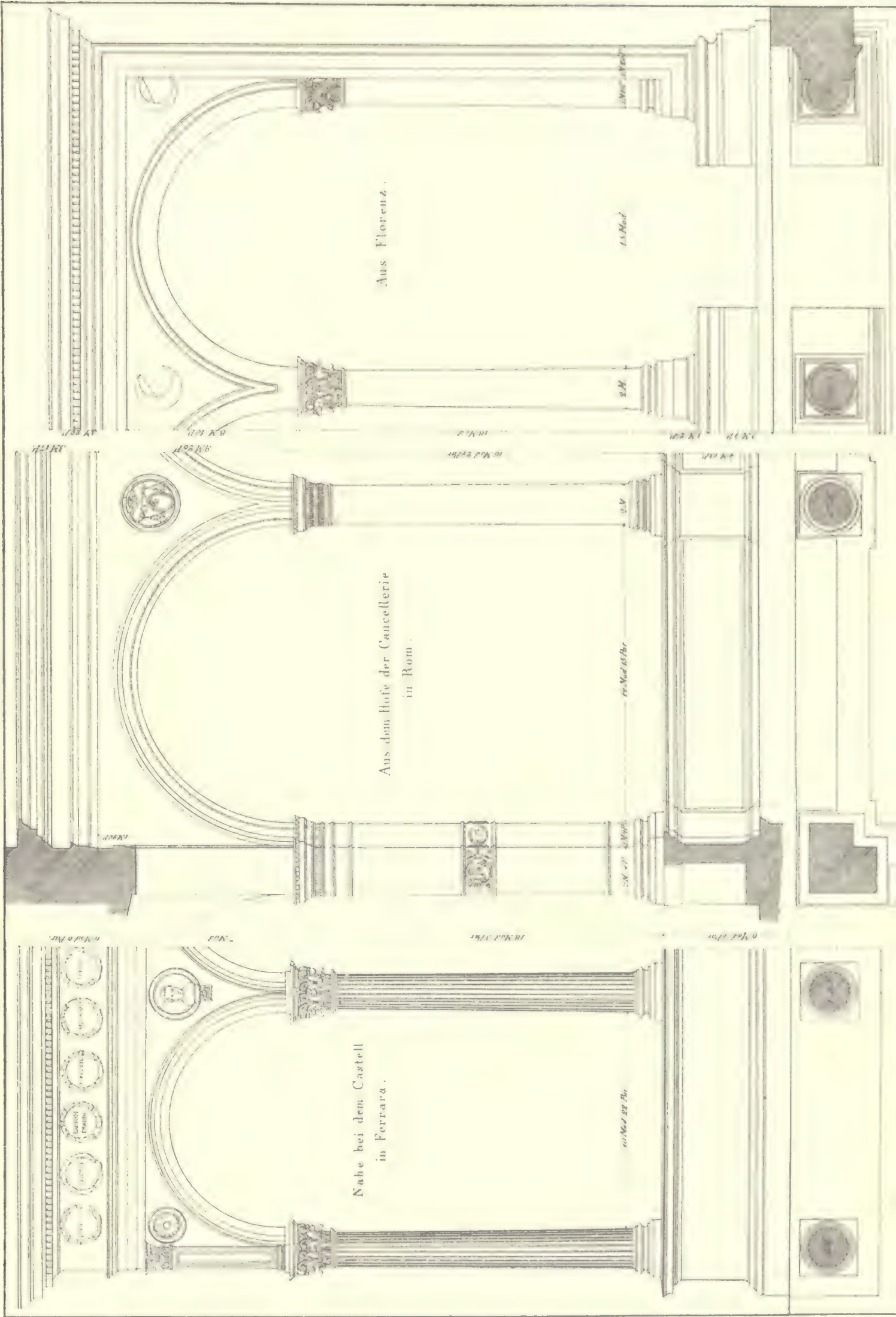


PLATE 98.

DOORWAYS AND WINDOWS.

From the ancient structures there have not been preserved many examples of either doorways or windows of arch form which we could represent here as types. We find, however, many examples on the buildings of the fifteenth century. A diligent study of the classic work of the ancient time led in the renaissance period to the reconstruction of Roman architectural forms, which, in connection with the architecture in Italy, brought about new thoughts. Among the founders of this new school stands at the front Brunelleschi (1375-1444), the architect of the dome and choir of the cathedral at Florence. He is followed by his pupil, Michelozzi, who, about 1430, erected for Cosimo Medici the Palace Riccardi at Florence, one of the largest of those palaces typical of the strong architecture of Tuscany. Its doorway is of the finest example, and the windows have not been surpassed by the later masters.

On our plate is given both window and doorway in elevation. A flight of steps of pyramidal form leads from the street up to the door sill. The door leaves are of wood, with rosettes in the panels, and decorated with a great mass of metal nail heads. The plan under 1c gives a horizontal section through one of the doors at the rosette. At the same plan is also the profile of the architrave of the doorway. Over the arch is found a relieving arch of rusticated work which, towards the top, is somewhat pointed. This form appears as reminiscent of the earlier pointed arches. The pier at the end of the wall is, on our plate, in order to save space, represented smaller than is actually the case. The socle forms a continuous base along the front with a projecting step. Numerous palaces of Tuscany have this arrangement for the convenience of waiting servants. At the same time it gives a strong base to the superimposed building. Slightly above the floor level on the piers are projecting sockets in which, on festival occasions, could be supported torches. These ornaments are well executed in iron.

The second story arises over a dentil cornice which crowns the first story, and which at the same time forms the window sill of the second. Each window is filled with a column and two half-circle arches after the manner of the middle ages. In the spandrels are placed crests in medallions. The small arches were supported on both sides by pilasters. At 1a is a horizontal section taken at the springing of the arch, and at 1b is a profile of the bases of the small columns and pilasters. Over the windows are relieving arches similar to that of the doorway below. The second story is crowned with a console cornice, on which arise the windows of the third story arranged in a similar manner as those of the second. A mighty Corinthian cornice crowns the whole.

Under Fig. 2 is a window of the Palace Buini which is represented here on account of its ornamental trim, shown in detail under 2a. The division of the relieving arch and the wall is actually similar to that under Fig. 1, but we have at Fig. 2 shown the arch from the Palace Gondi, erected in 1490, as, on account of its original arrangement of blocks on the piers in the form of a cross, we thought it might be of interest.

The ornamental doorway at Fig. 3 belongs to a house in the via Parione at Rome. It is a combination of the Tuscan arch and the Bramante forms. Fig. 3a shows a profile of the trim and 3b a section of the cornice.

Fig. 1

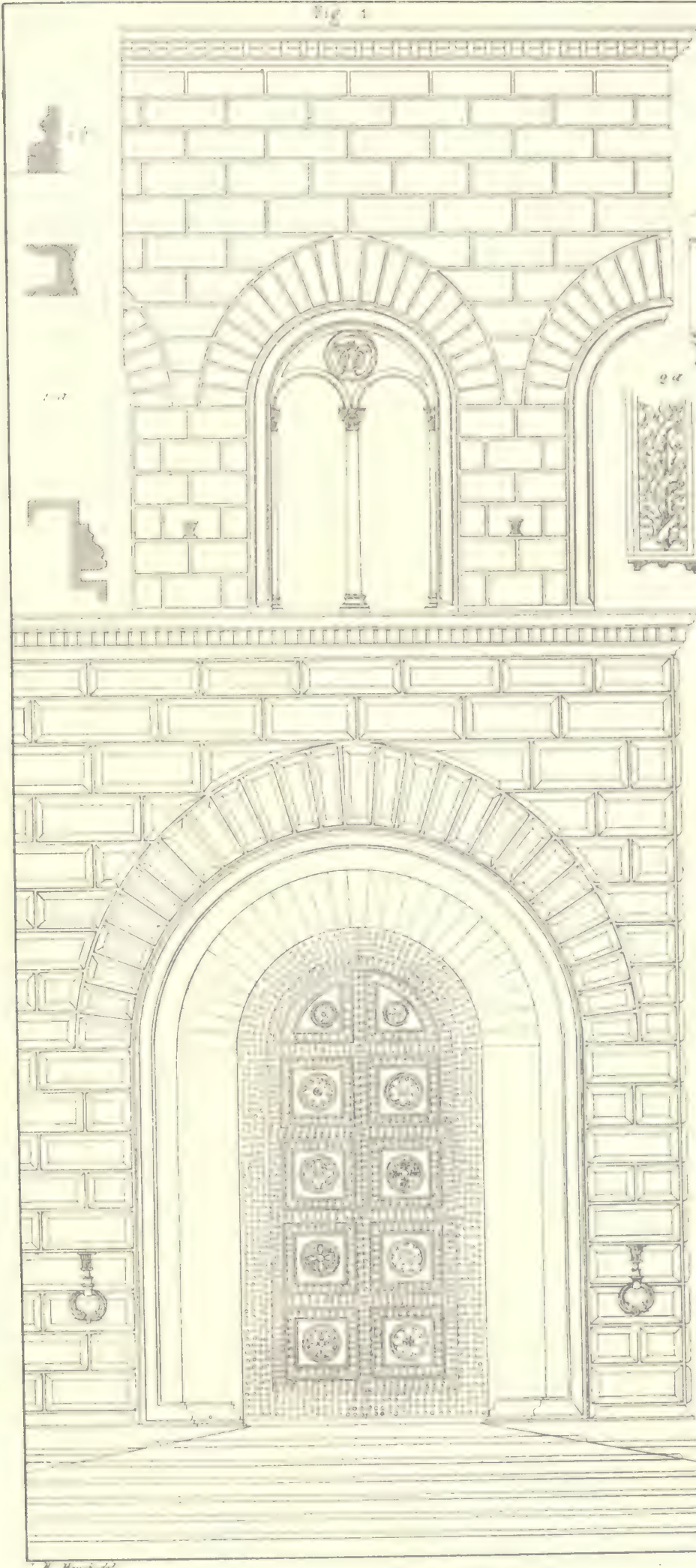


Fig. 2

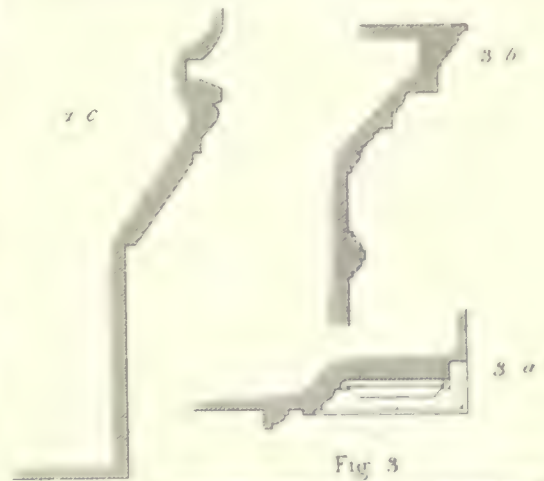
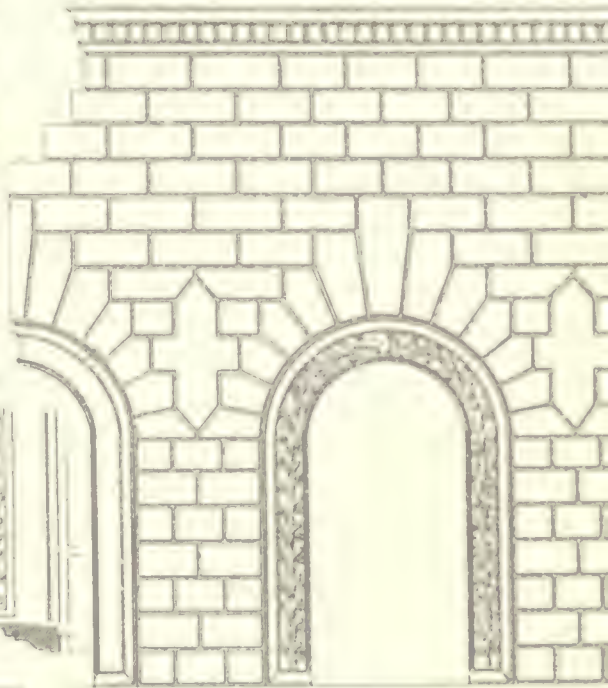


Fig. 3



PLATE 99.

WINDOW AND BALCONY.

On Plate 99 is represented a window and balcony of the second story of the Palace Cancellaria erected for the Cardinal Riario about 1495 by the architect Bramante. (The arcade of the court of this palace was treated at Plate 97.)

At Fig. 1 is an elevation, and at Fig. 2 a section at a larger scale. Figs. 3, 4, and 5 are details of both window and balcony. As a pilaster treatment forms the decoration of the wall, we have taken one-half the width of a pilaster for the module scale in drawing this window. The windows are spaced from center to center 23 modules 27 parts, and on each pier between the windows are two pilasters 7 modules 29 parts from center to center. The windows stand on a projecting pedestal as shown at Fig. 2.

As the consoles of the balcony rest on the cornice of the lower story, and are partly hidden thereby, the architect very skilfully designed them in two divisions as shown at Fig. 4. The medallion over the window projects four parts, and is ornamented with a five-leaved rose, which is recalled in the balcony and many other places. The details of these windows are highly elegant, as is also the ornament. The windows of the other stories are smaller and of different treatment.

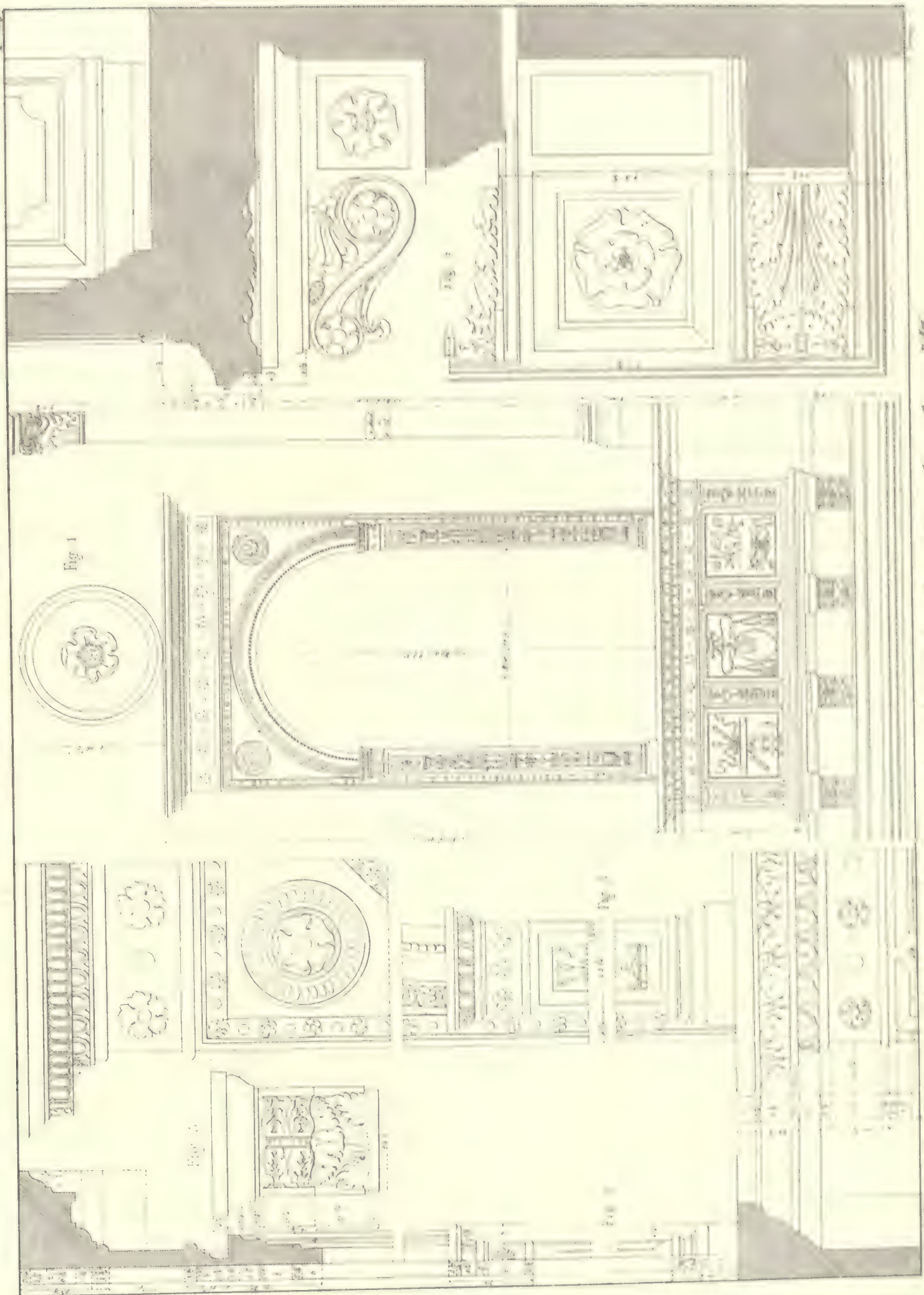


PLATE 100.

A VIEW IN THE TRIPOD STREET AT ATHENS.

At the great festival plays of the Greeks, gymnastics and music were the subjects of debate and contest. The choragus who was successful in the musical contests received as a prize, besides the wreath from the olive tree, a tripod which he usually placed in the Temple or Theatre of Dionysos, and dedicated the same with an appropriate inscription. Those victors who were desirous of more honor placed their tripods, when their means allowed, on costly bases or supports, for public view. In this manner originated in Athens an entire street of choragic monuments which led off from the Prytaneum on the southeast foot of the hill of the Acropolis, and was thus called the Tripod Street.

Of the many monuments standing together here only four, much damaged and without the tripods once crowning them, have been preserved to our time. On the plate we have endeavored to restore a part of this street, in which we have taken the liberty to place the Monument of Lysicrates closer to that of Thrasyllus than was actually the case. The monuments preserved served exclusively as supports for the prize tripods. Only that of Thrasyllus, now no longer in existence, had provision on its interior for the placing of trophies. (See Plate 17 for description of this monument.)

On the face of the cliff nearby was still seen at Stuart's time a sun dial, which is visible on our plate. Above on the cliff stand two columns which once answered for the supports of tripods, as their capitals have three-cornered covers. These columns are still standing at this time on their original site. In the background we see arising over the wall of the Acropolis, the Pantheon.

On Plates 54 to 57 is represented in detail the choragic monument of Lysicrates. We mention here only the tripod which is drawn in a similar manner to one found at Herculaneum. It is in keeping with the three-armed finial, and both together form a highly ornamental and harmonious crowning to the monument, which would not be the case had we represented the finial as supporting a kettle or vase, as is sometimes done by other authorities.

In the foreground we see a tripod standing on an altar-like base. This tripod, of bronze, was found at Herculaneum. The three-cornered pedestal of white marble is now in the Royal antique collection at Dresden. The niches over the exedra answered for the placing of tripods as well as for wreaths of victory. Over these niches we see a statue of Octaon.





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